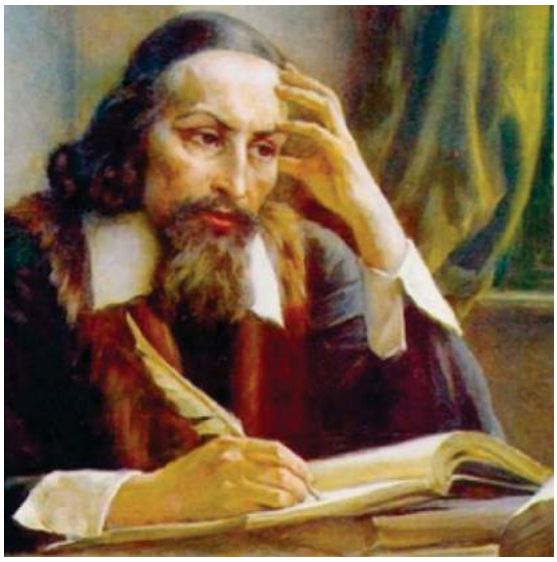

# THE GREAT CZECH EDUCATOR JAN AMOS KOMENSKY : A CLASSIC AND MODERN APPROACH TO EDUCATION

## International Conference

**4–5 April 2019,**
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# Universal Educator John Amos Comenius in Global Visual Art

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## Abstract

In the history of global thought and pedagogy there are not many authors who encompassed with their work a palette of topics as wide, or who continually provoked such interest, as Comenius. The more years passed from the time he lived, the deeper his legacy has impacted modern society, it is stunning how applicable the works of Comenius are in the 21st century. In his personality we find an irreplaceable intellectual value on which the foundations of our culture are built. It is also the reflection of the personality of J. A. Comenius and his works in the visual arts, as well as in beautiful literature, drama, film, and music. Comenius is one of the most easily recognizable in the world. While various types of portrayals abound, such as the landscapes depicting Comenius's place of work, monuments, or narrative portrayals, portraits of Comenius form the most numerous group of creative works of this topical orientation. A special place in a number of paintings is held also by a portrait by Rembrandt van Rijn. It is of little significance that appearance of the "Teacher of Nations" remains artistically inconsistent. The main objective of all the authors of artworks depicting Comenius has always been to spread awareness and concern about the genius of Comenius as one of the most important figures in history, especially in the field of pedagogy.

*Keywords: Jan Amos Komenský, John Amos Comenius, pedagogy, history, philosophy, art, museology, paintings*

In the year 2019 we are starting a series of activities that are framing the celebrations of J. A. Comenius in 2020. We all can agree on the fact that Comenius is a combination of humanitarian educator and a founder of modern education, philosopher, theologist, linguist, cartographer, naturalist and social thinker of the 17th century. Comenius belongs to the most important representatives of Czech and world education. Throughout his whole life he was endeavouring the versatile remedy of a human based on education and upbringing, he was looking for a way of unification of all human knowledge, social justice and ensuring peace around the world. He was also emphasising *human freedom, tolerance, humanity and justice for all.* In his work we can find *a sense of harmony in the relationship of people to the world, a sense of discipline and order.* Comenius's origin is in Czech lands, which were in vast majority devoted to an idea of *reformation*, but there was a principal of religious tolerance. In his time and for the future generations, he set a demand of general education for all. He became a genius in the upbringing and education field. That's why he is often called "*The Teacher of Nations"*. Until today, his work is a subject of word specialists' admiration, not only educators' and historians'.

Not only does his extensive work reveal the renown of Comenius. It is also reflected in the extensive literature devoted to him and numerous works of art. And this is exactly what we want to address at this year's conference. I also want to underline the international reputation of Comenius, which is why our guests are comeniologists from abroad. They represent states in which the Comenius legacy is taken care of and where Comenius left traces of his reforms or influence on the development of the society. I paid attention to Comenius in Czech and Global visual art (painting, drawing and graphics, banknotes and postcards, school paintings and school supplies, sculpture, small sculpture, medals and

plaques) in the book *John Amos Comenius in Czech and Global Visual Art (1642-2018),* Prague, 2017. *1* This book (was placed in the library of the Faculty of Social Sciences and Psychology, Baku State University), which is accompanied by an extensive pictorial supplement, was dedicated to all teachers in the world, who have the courage to spread and fulfil the brilliant legacy of Comenius. The issue will also be devoted to the planned extensive three-part Encyclopedia of J. A. Comenius and his life, works and legacy (Encyclopedia Comeniana), whose scope is remarkable (it already has about 3 500 manuscript pages from 90 authors). The publications will include some other slogans dedicated to Comenius in the visual arts, music, literature etc. and will be ready in 2022.

In today's post I will present a brief history of depicting the teacher of nations from 1642 to the present. These treasures are found in museums, galleries, libraries, and archives around the world. I would also like to show you the trend of visual depiction of Comenius. Especially in the visual arts, Comenius's personality has given motives to a lot of impressive work. In the later period, artists had the advantage of being able to draw on authentic portraits created in England and the Netherlands in the 17th century. We are familiar with two illustrations and variants derived therefrom. The first oldest portrait type, depicting Comenius, was created in London and is associated with the Prague native Václav Hollar (1607 – 1677), an ex-White Mountain exile. This copperplate engraving from 1642, accompanied by an English translation of Comenius' *Ancestor of the All-Know-All* with the title of *A Reformation of Schools.* Engraving is given only by the name of the engraver George Glover, the artwork is attributed to V. Hollar. In 1652, a similar portrait dates back to the 60-year-old Comenius, also attributed to Hollar (now preserved in the National Gallery in Prague). On this portrait, however, Comenius does not have his typical curved nose, so it may be a modified engraving from 1642. A slightly modified portrait from 1652 by engraver Thomas Cross appeared as an illustration for the Anglo-Latin edition of The Gate of Latin Tongue, from 1656 (Comenius as 64-year-old).

The second significant credible portrait was created by the Dutch painter and graphic artist Crispin de Pass jr. (1593 – 1670) and English engraver David Loggan (1634 – 1692). As the authors, they are featured on the cover sheet of the *Collected Didactic Works (Opera Didactica Omnia)*. Comenius sitting, school attributes in the background etc. From this masterpiece, another Dutch work was created, which can be found on the title page of the Dutch edition of *Vestibulum, Portael der Saecken en Spraecken*, from 1658. Another portrait of Comenius is located in the National Library in Vienna, on a 1665 copper-engraving by Christian Hagens. Berlin in 1757. *2*

Extraordinary oil paintings with a portrait of Comenius were discovered by Czech artists in the early 20th century. It was a picture of Comenius by Dutch master Jurian Ovens (1623 - 1678), who worked in Amsterdam in 1650 – 1652. The original of Ovens' painting, on the basis of which later well-known copies were made, especially by Rudolf Vejrych (1882 – 1939) and unspecified painter W. Stad, is managed by the Dutch National Museum (Rijksmuseum) in Amsterdam.

A great stir came in 1914 when the public thought Comenius was on the oil painting of the famous painter Rembrandt van Rijn (1606 – 1669) (it is still in the Uffizi Gallery in Florence, Italy). *3* However, much of the Czech population still likes to believe that it is Comenius. In November 2007, the National Pedagogical Museum and Library of J. A. Comenius (NPMK) initiated a concert project aimed at the performance of *Vivat Comenius* with extracts from the most important philosophical work of Comenius *The General Consultation on the Reform of Human Rights* ( in original language: De rerum humanarum emendatione consultatio catholica) with the Czech famous protagonists: Alfred Strejček and Štěpán Rak in front of Rembrandt's supposed portrait of Comenius, right at the Gallery Uffizi, Florence (Italy). *4* Created from this performance was a film that is often used to present Comenius ideas. However, there is another bold hypothesis, but not scientifically proven, concerning Rembrandt's last painting, The Return of the Lost Son (around 1668), located in Rembrandt's Hall (Room 254), at the State Museum – Hermitage (Winter Palace) in St. Petersburg. Indeed, Natalya Zolotukhin suggested that Rembrandt's Return of the Lost Son was to some extent inspired and influenced by the meeting of Comenius and Rembrandt in Amsterdam (1657 – 1669), the affinity of their thoughts, and the similar view of the world, human-life relations. She claims that it is possible that Rembrandt even viewed Comenius as his spiritual master (Comenius was 14 years older). Comparison of Comenius portraits from the time when Rembrandt's painting Return of the Lost Son was created brings N. Zolotukhin to the idea that portraying a father in this picture may have a psychological image in the person and spiritual qualities of J. A. Comenius. The claim of St. Petersburg art historian is based on the results of her long research, which she published in several articles.

A number of years have passed before Ovens' picture became a model for artists in the Czech environment (for example, Sucharda's draft of a monument for Nová Paka or Comenius' portraits by František Bílek). The reproduction of

Ovens' painting was also approved by the Decree of the Ministry of Education and Culture of February 12th, 1957.

If we look at how Comenius was portrayed, it is clear that in 17 – 18 centuries Comenius was portrayed with a focus on head imaging, headgear and basic physiognomic features – curved nose, high forehead, longer hair or beard, pointing to his wisdom, which represents the scholar's period image. Later, Comenius was presented as an intellectual with the attributes of a scholar, such as books, study, globe, pen "quill", table or armchair, as evidenced by the aforementioned Comenius painting *Opera didactica omnia* in 1657.This period's portray of a scholar by the drawings of Crispin van de Passe and the engraver David Loggan from 1657 and then the engravings of Christian Hagen in 1666 were later reflected in the Czech environment and influenced the visual presentation of Comenius, which has survived to the present day. One of the oldest Czech artistically valuable portraits (even though it is a transcript of the portrait of Comenius engraved by David Loggan) is the copperplate engraving of the representative of the book illustration of the end of the Baroque era Jan Jiří Balzer (1738 – 1799) from 1772. It was done according the drawing of Prague painter Jan Kleinhardt (1742 – 1794) and published in the biographical collection of Nicholas Adaukt *Voigt Effiges virorum eruditorum atque arte Bohemiae et Moraviae (Pictures of Educated Men and Artists of Bohemia and Moravia)* from 1773 – 1782. *5* This rather successful portrait represents Comenius primarily as an intellectual. Comenius is portrayed with a calm expression, undoubtedly as depicted by Crispin van de Passe on the cover sheet of *Opera didactica omnia.* Other editions of Comenius' texts are also supplemented by his portraits, such as the *Labyrinth of the World and the Paradise of the Heart* from 1782, or *Praxis pietatis* from 1786, both works published in Prague are stored in the National Library of the Czech Republic. There are also other works of *Praxis pietatis* with a portrait of Comenius published in Berlin in the year 1782. Imprints of the copper-engraving Jiří Balzer joined, among other things, later published writings, such as the publication of Comenius' Doors of Languages 6 by Czech poet, writer and translator Karel Ignatius Thám (1763 – 1816). Thám probably knew the Kutná Hora edition (1785) of the Czech Comenius' *Centrum securitatis (The Center of Security).*

In the second half of the 19th century, Comenius became a personality who helped to revive Czech national values in the long term in connection with the preparations for the 200th anniversary of his death (1870 – 1871), several attempts by painters and sculptors to depict Comenius' appearance appeared in the Czech lands and abroad. Other variants of portraying Comenius were wee created by a wave of interest from other painters who attempted to portray his portrait in a bolder way at the end of the 19th century. To this generation belonged painter Peter Maixner (1883 – 1884), author of the portrait of Comenius from 1871, which was also published as a lithograph.*7*

Given the high number of depictions, I am now focusing only on the most important pictures of Comenius from the late 19th and 20th centuries. The aforementioned generation of artists include Mikoláš Aleš (1852 – 1913), a classic of Czech 19th century art, in whose conception Comenius' idealization manifested itself, and painter Václav Brožík (1851 – 1901) based on the old mentioned models. Brožík's oil painting *Comenius in his study in Amsterdam* was painted in 1892 to mark the 200th anniversary of the birth of Comenius and is now located in the main building of the Academy of Sciences of the Czech Republic in Prague. Brožík created a new portrait of Comenius, in which he put all his mastery of the historical painter and excellent portraitist. Brožík is also the author of a large picture from 1898, in which Comenius stands before the City council in 1657 as a part of one of the lunettes in the Pantheon of the National Museum's historic building in Prague. Less known is Brožík's oil painting *Comenius says goodbye to Karel Elder of Žerotín* from 1873. The painting is in the Gallery of Fine Arts in Ostrava. *8*

At the end of the 19th century, when Comenius was celebrated on the occasion of the three hundredth anniversary of his birth, an alga of outstanding works of art was created. During 1892, previously created works of art were also published. However, Czech sculpture gradually took a leading role in the artistic design of Comenius. However, Jan Amos was still portrayed not only in portraiture but also in monumental works reflecting his dramatic fate. The most common topic was the scene of Comenius leaving for exile, for example, woodcut by Felix Jenewein (1857 – 1905) *Comenius says goodbye to his homeland* (1897), or similarly named work of painter Antonín Chlouba (1873 – 1927), drawing from 1885 an oil painting 15 years younger. Jenewein's composition impressed and engraved on the cultural memory of Czech society. It has become the content of a well-known school image.

The line of iconographic type of Comenius as an exile continued in a new artistic concept thanks to the greatest representatives of Czech Art Nouveau. The world-renowned painter and designer of the art nouveau Alfons Mucha (1860 – 1939), whose life's work is the acclaimed cycle of twenty large-format canvases called the Slav Epic *9*, achieved an extraordinary effect. In this monumental cycle, Alfons Mucha included his oil painting *Flame of Hope (Jan Amos Comenius)* in 1918. František Bílek (1872 – 1941), a sculptor

and architect, emphasized his patriotic note with his graphics, for example his non-traditional woodcut *Comenius Says goodbye to his homeland* from 1915 (the premium of the Umělecká beseda). The painter Max Švabinský (1873 – 1962) created a new national portrait of the great reformer Jan Amos, using the then discovered oil painting by J. Ovens, in 1920 to commemorate the 250th anniversary of Comenius' death. Švabinský's reworking of Ovens' image, which was also disseminated by graphics a few years earlies, was successful, but the above-mentioned Bílek's model was not received much more.

The famous Austrian painter, graphic, artist and writer Oskar Kokoschka (1886 – 1980) with Czech roots, who was also a Czechoslovak citizen in 1935 – 1947 also contributed in a special way to the Comenius Gallery. Kokoschka professed to the spiritual legacy of Comenius, who became a symbol and the embodiment of the best human endeavours or perspectives of mankind. He returned to Comenius in his essays. This admirer of Comenius and the author of the drama *Comenius* expressed, with an extraordinary sensitivity, the programmatic connection of the Czechoslovak state with the humanistic and fraternal traditions in his oil-painting allegorical double-portrait *Jan Amos Komenský and Tomáš G. Masaryk* (the first Czechoslovak president) of 1935 *10*, in which an alleged historical event is projected, when Rembrandt portrays Comenius.

At the end of the 20th century, Adolf Born (1930 – 2016), a painter and draftsman, got attention for his work and is the author of two popular prints: *Rembrandt portrays Comenius* (1985) and *The Skating School of Comenius in Naarden* (1995). At the beginning of the 1990s, graphic designer and illustrator Karel Beneš (b. 1932), who had a particularly close relationship with Comenius because he was born in his native region, entered a number of Comenius' painters. Beneš's etching from 1992 and a portrait of J. A. Comenius motto: "*Omnia sponte flaunt, absit violentia rebus" 11* evidently draws inspiration from both his predecessors – painters Max Švabinský and Karel Svolinský.

The great "boom" of this topic in the visual arts came as part of the celebrations of the 400th anniversary of the birth of J. A. Comenius. The anniversary influenced the creation of other works of art. E.g. graphic and engraver Josef Herčík (1922 – 1999) prepared a stamp for the town of Uherský Brod with a portrait of Comenius and the vedute of the town of Uherský Brod in Moravia (Czech Republic) with the monument of Comenius by Vincenc Makovský. Already a year before, in 1991, the Association of Collectors and Friends of Exlibris in Prague, in cooperation with the Ministry of Foreign Affairs of the CSFR, announced the International Exlibris Comenius competition for the four hundredth anniversary of Comenius' birth. From this suggestion, 124 valuable graphic works with Comenius theme were created b 81 authors, among them Karol Ondreička (1944 – 2003), who received the main prize for his etching. Small graphics on stamps would be a separate lecture.

In the Czech Republic, where the depiction of Comenius is most often depicted on works of art, it is mainly Prague (NPM, National Museum, Monument of National Literature, etc.), Uherský Brod, where Comenius was probably born and lived with his parents (1592 – 1604) *12*, and Přerov, where he studied at the Fraternal Grammar School in 1608 – 1611 and where he later worked as a teacher at the Latin School since 1617. These places include Fulnek and Brandýs nad Orlicí. The memorial of J. A. Comenius was established in Fulnek, because Comenius worked here as an administrator of the Brethren School (1618 – 1622), and, after the Battle of Bílá hora (White Mountain) he hid in the vicinity of Brandýs nad Orlicí" it is also the place of the first Czech monument of J. A. Comenius, unveiled in 1865 by prominent personalities of Czech public life. In the Elementary School of J. A. Comenius in Brandýs nad Orlicí, they have long been involved in coordinating the national competition "Comenius and us".

Outside the Czech Republic, Leszno in Poland can be listed first, where Comenius found refuge after 1627. He worked here in 1628 – 1641, 1648 – 1650 and 1654 – 1656. The Regional Museum of Leszno (Muzeum Okręgowe w Lesznie) preserves the monuments associated with it and statues of Comenius are also located in two other cities: Amsterdam and Naarden (the Netherlands) claim the legacy of Comenius *13*. Comenius worked in Amsterdam for a long time (1656 – 1670) as a renowned personality of European science and met with a number of scholars (including Rembrandt). Although Comenius died in Amsterdam, he was buried in the Reformed Church of Waloon Chuurch in Naarden (southeast of Amsterdam).

Works of art, rare books, memorials or commemorative plaques that illustrate the size of Comenius' legacy can also be found in other places abroad. These include the USA, Bethlehem (Moravian College) in Pennsylvania. The emigrants presented Comenius as a valuable symbol of Czechness differently. For example in March 2017 celebrations took place in the town of Bethlehem, Pennsylvania, marking the 275th anniversary of the founding of the Moravian College, and at the same time of the town itself, the centre of which this school has become. It is one of the oldest higher education institutions in the United States and was one of just a few which had women as its students.

Czech Reformation and exiles from the Czech Lands stood at the start of the history of this college. They had settled in Lusatian Herrnhut from where they took voyages to overseas with the purpose of missionary activities. The Moravian church which derives its origin from ideals of Jan Hus and John Amos Comenius brought the latter personality to mind by an exhibition entitled *Education for All. The Legacy of J.A. Comenius to the World.* The exhibition was prepared by the National Pedagogical Museum and Library of J. A. Comenius in Prague (NPMK) and was installed in Payne Gallery in the centre of a large protected historical Moravian College campus between March,16 – April,16 2017. The Comenius Academic Club, seated in New York City, and the Historical Institute of the Czech Academy of Sciences acted as co-organizers of the event. For Czech scholars and comeniologists, the town of Bethlehem is also interesting because of owning one of three existing copies of a Comenius statue which stands in front of the Moravian College. It was made by Vincenc Makovský, an outstanding Czech sculptor. The first copy is placed in the town of Uherský Brod, Czech Republic, the second in Naarden, the Netherlands, and the third one in Bethlehem, Pennsylvania, USA. Bethlehem received the statue from Charles University in Prague in 1960. In October 1991 it was formally re-unveiled by president Václav Havel during his official visit to the Moravian College. In the USA, for example, they issued a "postage stamp" – or rather just a stamp, which in 1906 issued the *Matica of higher education* based in Iowa (founded 1902, which is stated on a stamp after the abbreviation M.V.V.). They were printed in New York Bank (the first high-quality Czechoslovakian hundred-crown bill was also printed there in 1920, which established the tradition of green hundred-crown banknotes). For obtained funds M.V.V. supported Czech students at US higher schools, poor students and also the Czech language education (which was accomplished, for example, at the University of Nebraska in Omaha, where before the First World War – since 1907, Czech language was taught as part of the Slavonic Languages Department – thanks to Prof. Šárka Hrbková, probably the first Czech woman – university professor in the USA. *14*

Other places where we follow the visualization of Comenius include Herborn in Germany, where Comenius studied in 1611 – 1613, Blatný creek (Sárospatak) in Hungary, where he lived in 1650 – 1654, and also London, where he worked in years 1641 – 1642. And it was in England that the oldest portraits of Comenius were born, which were not known to the Czech professional public until the 19th century. There was also a proposal for the location of the Comenius' statue at an extremely prestigious location in Rome, in the park "Villa Borghese", where the monuments of the greatest personalities of the people of the four continents – Europe, Asia, America and Africa are located.

**Conclusion**

Comenius' legacy is spread not only through his wise books, but also through paintings created by artists, who had known Comenius personally, since the 17th century. Later, when Comenius had to be rediscovered and his work and projects to improve the world understood, a number of artists came to this stream. With paintings, sculptures, illustrations, medals, school paintings, and other artefacts more or less valuable, they helped to commemorate Comenius as a teacher, philosopher, theologian, writer, composer or historian. Oftentimes, the people were clinging to Comenius persona in the tense, fateful moments of the Czech nation, such as during World War II (1939-1945) or while leaving to forced exile. Comenius, however, remains the living inspiration until today, in all parts of the world. Comenius belongs to the most important representatives of Czech and world education.

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1) Articles or publications have already been published on the subject. The last important publications include a book by Lenka Řezníková et all., *Figurace paměti. J. A. Komenský v kulturách vzpomínání 19. a 20. století*, Scriptorium, Prague 2014.

2) Jan Kumpera, *Imagines Comenii. Comenius Portraits in Ages*, Union Comenius Bulletin, No. 12 (extra number), p. 52.

3) The opinion of the then publicist Gustav Jaroš and the artistic historian V. V. Štech, that it is a portrait of Comenius was rejected.

4) The initiator was Markéta Pánková together with Alfred Strejček, DVD Vivat Comenius, stored at NPMK.

5) Painter Jan Kleinhardt was so called personal painter of Jan Jiří Balzer.

6 )*The Door of Languages* is a Latin textbook, previously the textbook was translated with the incorrect name "Gate", which was then used for some time.

7) Jindřich Šámal, *Comenius and Czech Fine Art*, in: *Jan Amos Komenský. The life and works in documents and in the Czech fine art*, Prague 1963.

8) Václav Brožík, *J. A. Comenius Says Goodbye to Karel Elder of Žerotín*, 1873, oil, canvas, 187x155 cm, GVUO

(O37) in mentioned Brief Pedagogical Dictionary, II on p. 667 is mentioned the title of *Brožík's work Komenský and Žerotín looking down from the castle.* This picture is also reprinted in the magazine *Cour d'honneur,* I-98, chief editor Marie Mžyková, publisher Elfa, Prague, p. 18. This number was dedicated to Žerotíns.

9) He worked on it eight years (1910 – 1918) in a studio at Zbiroh castle, Czech Republic.

10) Detailed in: Jan M. TOMEŠ, *Oskar Kokoschka*, Odeon, Praha 1988, Olga WALLÓ, *Jan Amos Comenius through the eyes of Oskar Kokoschka*, in: *Charles' University Tribute to J. A. Comenius*, eds.: Jaroslava Pešková, Michal Svatoš and Josef Cach, Karolinum, Prague 1990, p. 286 – 289.

11) Catalog *Exlibris Comenius 1991*, Association of collectors and friends of Exlibris in Prague in cooperation with the Ministry of Foreign Affairs of CSFR, Prague 1991, p. 22.

12) In the first months of 1604, both parents of J. A. Comenius, who lived with their son Jan in house No. 201 at the square in Uherský Brod, died. Today, a plaque with a portrait of Comenius is placed on the house. There are undisputed documents that would end the speculation and assumptions about Comenius' birthplace.

13) Since January 1st 2016 the small town *Naarden* is a part of new founded city of *Gooise Meren*.

14) The stamp should not be glued to the front of the envelope, so as not to be mistaken for a postage stamp. It has been printed in at least three colors (green, dark blue, and burnt sienna). The stamps were usually 24 pieces in small sheets, printed even in hundred on large sheets – like stamps. Who was the author of the art is now being discovered, at the time there were two prominent Czech graphic designer who made the most portraits and pictures of various buildings and personalities, etc. in Czech magazines. They are Emanuel Nádherný and V. Kytka. Maybe it was one of them, but it is only an unsupported guess.



Ze zinkografie Šimáčkova »Světozora« 1892.

# Educational, Developmental And Educative Duties In The Taxonomy Of Training Objectives

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## Abstract

Every person has ability of creative thinking. However, not every person can be called a creative person. Creative people are those who are smart and possess the ability to grasp realities and reactions to these realities. At the same time, people who achieve extraordinary inventions or realize creative acts can also be referred to as creative people. The creative way of thinking is the type of thinking resulting from inventing new things or improving other actions. The creative way of thinking is used to generate a large number of ideas. The main characteristic of the creative way of thinking as an intellectual system is the ability to analyze any problem, establish systematic relations, reveal contrasts, find out ideal solutions for these contrasts, and forecast possible versions for the development. The research carried out once more proved that the creative way of thinking is important for life. From this reason, the society that wants to achieve great successes and implement creative potential must try to make students improve their creative ways of thinking.

*Keywords: creativity, creative way of thinking, taxonomy, personal qualities, pedagogical conception, education*

**Introduction**

Specific pedagogical conceptions are outlined throughout each stage of the development of a society. These conceptions not only reflect the pedagogical values of society from educating new generations perspective but also philosophical-psychological values. As societies develop, new trends emerge in their education policies, stereotypes existing in previously formed pedagogical theories turn out to be obsolete, and when societies understand the necessity for new ones, new pedagogical conceptions emerge. Existing pedagogical conceptions in the world education history have developed in three directions:

1.Teaching-based education conception;

2.Development-based education conception;

3.Nurturing-based education conception

These pedagogical conceptions are completely different from the educational purposes points of view. Teaching-based education conception focuses on comprehension, but development-based education conception keeps the development factor in the center of attention. Nurturing-based education conception is included in enlightenment and development-based education conception contents and is realized in the formation of nurturing possibilities in the first case and the development of personality in the second case.

Although teaching-based education conception and development-based education conception have developed parallelly in the world education history since ancient times, teaching-based education conception was used in wide geographical areas. The main reason is very simple: the elimination of illiteracy was the main problem that thinkers, enlighteners, and teachers kept in the center of attention.

Based on the researches made by Jean Piaget, Lev Vygotsky, Abraham Maslow, etc in the field of pedagogical psychology in the 20$^{th}$ century, cognitive development became actual and was characterized as a psycho-pedagogical innovation. Scholars began to find ways to realize the educational objectives. Bloom taxonomy turned out to be the education conception of the century from realizing these objectives perspective.

**The Nature and Description of the Problem**

There are two versions of taxonomies named after Benjamin Samuel Bloom, an American educational psychologist. In the original version of the taxonomy, the cognitive domain is broken into the following six levels of objectives:

**Knowledge – Comprehension - Application– Analysis – Synthesis - Evaluation**

The mentioned taxonomy that classifies educational learning objectives into levels of specificity and complexity can be divided into two parts. Nominally, the first can be called teaching-based education and the second part can be called development-based education.

Comprehension of knowledge by students is of a highly prioritized issue in the teaching-based education level. This level reflects the first three components in the taxonomy: knowledge, comprehension, and application. In the teaching-based education conception *teaching, comprehension, and application* were assessed as comprehension levels. In *Didactica Magna,* John Amos Comenius writes, "the scholar should be taught first to understand things, and then to remember them, and that no stress should be laid on the use of speech or pen, till after a training on the first two points".(1,120) Within this idea, he put forward understanding, remembering, and applying as a goal of training. These levels (or these objectives) were considered enough for the comprehension of knowledge.

The comprehension of knowledge was the main objective of teaching-based education and based on memory. Memory is directly related to perceptive processes, for example, comprehension. Schools based on the teaching-based conception comprehended this well-rooted psychological fact as a memory factor. Memory is a psychological phenomenon. Memory phenomenon is attached much more importance in modern psychological researches and school processes, and mnemic processes are evaluated as important components of cognitive activities.

Teaching, comprehension, and application were the only levels in the teaching-based education conception. These objectives played the role of the foundation for the formation of cognitive activities. Especially, analysis and synthesis were mentioned separately in the afore-mentioned taxonomy. Analysis and synthesis are the main cognitive activities, and comparison, generalization, etc derive from these components.

In the 90s, Bloom's taxonomy was revised, and the second version was introduced. There are six levels of cognitive learning according to the revised version of Bloom's Taxonomy:

**Remember, Understand, Apply, Analyze, Evaluate, and Create**

In this version of the taxonomy, creativity issues were thrown light on. Probably, the main reason is the emergence of the creative way of thinking type as a result of researches conducted by psychologists between the 60s and the 90.

In the first half of the 20$^{th}$ century, psychologists differentiated practical thinking, figurative thinking, and abstract thinking. In the second half of the century, as a result of researches carried out by psychologists, empirical thinking and theoretical thinking (V.V.Davıdov) (2), convergent and divergent thinking 1 (G.Gilford) (3), vertical and lateral thinking (Edvard de Bono) (4) types became wide-ranged, and this process resulted with the revision of B.Bloom's taxonomy, offering wide options for the improvement of the creative way of thinking in education processes.

At all times, thinkers, enlighteners, and progressive teachers have attached importance to nurturing opportunities of lessons and used lessons within the framework of nurturing criteria. In the context of century-long experiences, the phrase *the education must nurture students* seems axiomatic. From this perspective, a lesson can seem complete with the combination of teaching, developmental, and nurturing objectives. However, B.Bloom's taxonomy reflects only teaching and developmental objectives not focusing on nurturing objectives. On the other hand, nurturing characteristics of lessons require these objectives to be among prioritized issues.

The personality development problem is solved in the human relations context. In this aspect, classroom environments are good opportunities for personality development. Personality development is a time-consuming, complex, and contradictory process. In case this process is under the control of teachers, there are more possibilities for personality development. When approached from this aspect, nurturing characteristics of education and the importance for the third part of the taxonomy become actual. Psychologist Abdul Alizade (Əbdül Əlizadə) has developed three-component educational taxonomy:1$^{st}$ part -learning; 2$^{nd}$part -development; 3$^{rd}$part - culture (5, 80).

Each part reflects the following elements:

Learning - knowledge, ability, customs, remembering, understanding, and application;

Development - analysis, synthesis, comparison, generalization, abstraction, cognitive peculiarities, cognitive and creative processes;

Culture – the culture of feelings, communication culture, moral culture, volitional culture, national-moral culture, and secular culture.

As a social phenomenon, culture is a historical process, bases on material-moral values and norms, and is considered to be “the second nature” of a person. Its classical element is *from chaos to order.* Each period has its own culture. Today, culture is regarded as the result of the nurturing process.

These elements create the condition in which nurturing-based education turns into a personality-based education level. Using these elements in different stages of the education process positively affects the educational process of learners.

**The objective of the research** is to learn the effects of creative ways of thinking of students and personal traits on their educational activities.

**The hypothesis of the research.** As known by everyone, creative tasks are vital for the improvement of the creative way of thinking. The research hypothesis is that in case creative tasks are used for the formation and development of personality, they can extraordinarily affect educational achievements.

**The method of the research**

The experiment was carried out in Baku State University and Azerbaijan State Pedagogical University.196 students participated in the research process. The participants joined the research into two groups: the control group of 101 students and the experimental group of 94 students.

Practical training in the experimental groups was carried out in line with the requirements of Abdul Alizade’s taxonomy, but this was not the same for the control groups. By the outlined objectives, the experiment was conducted with the second year students in the workshops and individual training during the Pedagogy course. The students were assigned creative tasks in a way that these tasks created a good condition to improve their creative ways of thinking and to develop personal traits. At the beginning and end of the experiment, the educational achievements of students depending on creative ways of thinking and personality development were evaluated via comparative analysis.

**Criteria to measure the creative way of thinking:** (Note: while determining the criteria to measure both the creative way of thinking and personality traits, the works by J. P. Guilford were referred to) He thought that the *creative way of thinking* is directly related to four dominant traits:

A.Originality, nontriviality, an ability to produce unusual ideas, obvious expression of intellectual innovations.

B. Semantic flexibility. This is the ability to observe objects from different perspectives, to find out new rules for the usage, and improve the functional application in practice.

C.Figurative adaptive flexibility. This means the ability to change the comprehension of an object in a way that hidden news features become visible.

D.Semantic spontaneous flexibility. This is the ability to have extraordinary ideas in indefinite situation(6)..

**Criteria to measure the personality traits:** J. P. Guilford thought that the followings are very important for individuals who want to improve their creative ways of thinking:

- Ability to take risks
- Divergent way of thinking
- Flexibility in thinking and behavior
- Speedy thinking
- Ability to produce original ideas
- Rich imagination
- Ability to comprehend polysemantic notions
- Esthetic values
- Development of intuition

It is worth mentioning some points to improve the creative potentials of people:

1. Improving abilities to acquire new knowledge and skills, to collect and systemize information that is necessary for the creation of new things, as well as for the proper type of activities.
2. Creation of an atmosphere that leads to creativity. The key feature of this atmosphere is the lack of criticism in the creation of new ideas stage, and in its turn, it eliminates internal limitations that prevent observing problems from new perspectives.
3. Seeking analogies. If it is possible to see analogies between issues and other problems, even though they are not similar, it means that there are more chances for the creative solution of the problems.

**The interpretation of the results.**The creative tasks offer wide opportunities for the improvement of the creative way of thinking and the formation of personality traits. The implementation of the experiment and the analysis of the results have grounds to say so. The figures, which show the development dynamics of the creative ways of thinking and personality traits of students including their achievements within the experiment period, have been included in the articles.

**The result of the comparison between two groups before the experiment:**The development dynamics of the creative way of thinking of the students before the experiment is shown in Table 1. As it is seen in the Table, there was a slight difference. This shows the existence of the preliminary condition (the same or close inter-groups condition or levels) necessary to conduct the experiment.

Table 1

The development dynamics of the creative way of thinking of the students before the experiment

| The development dynamics of the creative way of thinking | | | | |
|---|---|---|---|---|
| Group | Low | Medium | High | Total |
| Control | 35 | 34 | 32 | 101 |
| Experimental | 33 | 32 | 29 | 94 |
| Total | 68 | 66 | 61 | 195 |

The development dynamics of the creative way of thinking of the students before the experiments given in the graph form.

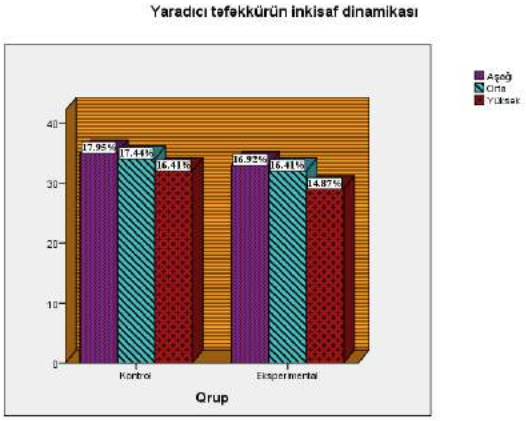


Figure 1. The development dynamics of the creative way of thinking

The statistic description of the development dynamics of the personality traits of the students before the experiments given in the Table 2. As it is seen in the Table, there was a slight difference. This shows the existence of the preliminary condition (the same or close inter-groups condition or levels) necessary to conduct the experiment.

Table 2.

The development dynamics of the personality traits of the students before the experiment

| The development dynamics of the personality traits | | | | |
|---|---|---|---|---|
| Group | Low | Medium | High | Total |
| Control | 39 | 34 | 28 | 101 |
| Experimental | 35 | 33 | 26 | 94 |
| Total | 74 | 67 | 54 | 195 |

The development dynamics of the personality traits of the students before the experiment is given in the graph form.

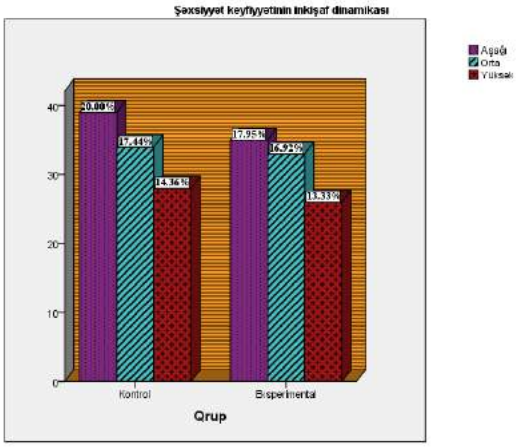


Figure 2. The development dynamics of the personality traits of students before the experiment

The statistic description of the development dynamics of the academic achievements of students before the experiment is given in the Table 3. As it is seen in the Table, there was a slight difference. This shows the existence of the preliminary condition (the same or close inter-groups condition or levels) necessary to conduct the experiment.

Table 3. The statistic description of the development dynamics of the academic achievements of students before the experiment

| The development dynamics of the educational achievements | | | | | |
|---|---|---|---|---|---|
| Group | Low | Medium | High | Group | Total |
| | Control | 22 | 45 | 34 | 101 |
| | Experimental | 21 | 41 | 32 | 94 |
| Total | | 43 | 86 | 66 | 195 |

The development dynamics of the academic achievements of the students before the experiment is given in the graph form

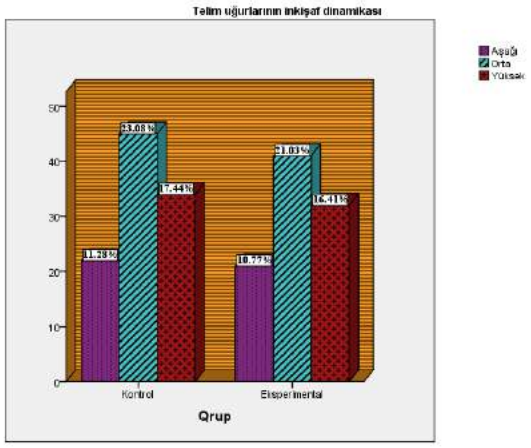


Figure 3.The development dynamics of the academic achievements of the students before the experiment.

T-test analysis was used to check whether the difference between groups on variables of "the development dynamics of the creative way of thinking of the students", "the development dynamics of the personality traits of students", and "the development dynamics of the academic achievements of the students" were meaningful or not from statistical point of view. The conclusion shows that there is no obvious difference between groups in the context of above-mentioned elements. This means that as Sig is ≥0.05, the present difference is meaningful on the 0.05 level. The variables for the creative way of thinking is Sig=0.913, for the personality trait is Sig=0.910, and for the academic achievements is Sig=0.987.

Table4. T-test for the creative way of thinking, personality traits, and the academic achievements.

| **T-test for the creative way of thinking, personality traits, and academic achievements.** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Variables | t | df | Sig. (2-tailed) | Arithmetic mean difference | Stan-dard Deviation | 95% reliability interval | |
| | | | | | | Low | High |
| the development dynamics of the creative way of thinking | .110 | 193 | .913 | .01285 | .11705 | -.21801 | .24371 |
| the development dynamics of the personality traits | -.114 | 193 | .910 | -.01317 | .11577 | -.24150 | .21517 |
| the development dynamics of the academic achievements | .017 | 193 | .987 | .00179 | .10635 | -.20797 | .21156 |

**The conclusion of the comparison between two groups:** In the course of the experiment, planned tasks were conducted with the experimental groups, and under the rules, the existing condition remained unchanged in the control groups without any experimental factors. The comparison was made between the scores of the groups in the second stage after the experiment to determine whether the experimental factors had any effects or not.

Statistic description of the development dynamics of the creative way of thinking of the students is given in the Table below. From the Table, it is clear that the difference is more obvious in comparison with the first stage.

Table 5. The development dynamics of the creative way of thinking of the students after the experiment

| The development dynamics of the creative way of thinking | | | | |
|---|---|---|---|---|
| Group | Low | Medium | High | Total |
| Control | 35 | 33 | 33 | 101 |
| Experimental | 15 | 37 | 42 | 94 |
| Total | 50 | 70 | 75 | 195 |

The development dynamics of the creative way of thinking of the students after the experiment is given the Figure 4.

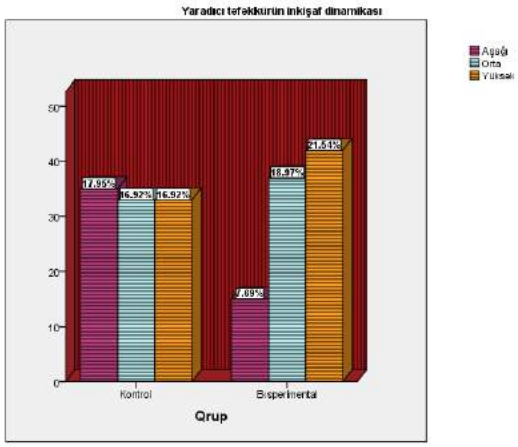


Figure 4. The development dynamics of the creative way of thinking of the students after the experiment

Statistic description of the development dynamics of the personality traits of the students is given in the Table below. From the Table, it is clear that the difference is more obvious in comparison with the first stage.

Table 6. The development dynamics of the personality traits of the students after the experiment

| The development dynamics of the personality traits | | | | |
|---|---|---|---|---|
| Group | Low | Medium | High | Total |
| Control | 37 | 36 | 28 | 101 |
| Experimental | 23 | 32 | 39 | 94 |
| Total | 60 | 68 | 67 | 195 |

The development dynamics of the personality traits of the students after the experiment is given the Figure 5.

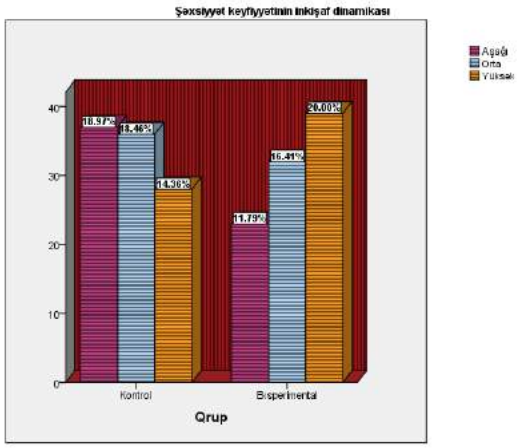


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Figure 5. The development dynamics of the personality traits of the students after the experiment

Statistic description of the development dynamics of the academic achievements of the students is given in the Table below. From the Table, it is clear that the difference is more obvious in comparison with the first stage.

Table 7. The development dynamics of the educational achievements of the students after the experiment

| The development dynamics of the academic achievements | | | | |
|---|---|---|---|---|
| Group | Low | Medium | High | Total |
| Control | 20 | 46 | 35 | 101 |
| Experimental | 6 | 48 | 40 | 94 |
| Total | 26 | 94 | 75 | 195 |

The development dynamics of the academic achievements of the students after the experiment is given in Figure 6.

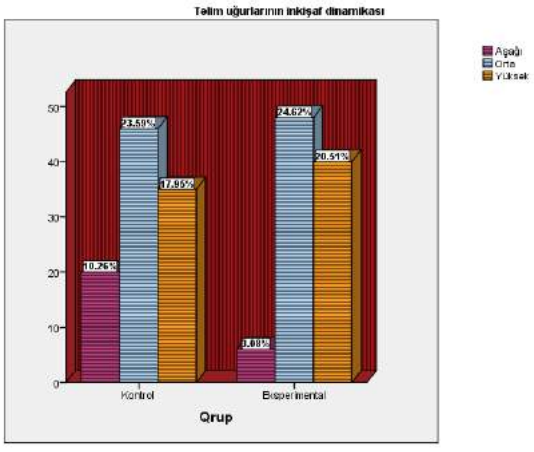


Figure 6. The development dynamics of the academic achievements of the students after the experiment

In the second stage of the experiment, T-test analysis was used to check whether the difference between groups on variables of "the development dynamics of the creative way of thinking of the students", "the development dynamics of the personality traits of students", and "the development dynamics of the academic achievements of the students" were meaningful or not from statistical point of view. The conclusions show that there were obvious differences between the groups. Thus, as Sig is <0.05, it can be said that the present difference is meaningful on 0.05 level. The variable for the creative way of thinking is Sig=0.007, for personality trait is Sig=0.025, and for educational achievements is Sig=0.027.

Table 8. **T-test for the creative way of thinking, personality traits, and the academic achievements**

| **T-test for the creative way of thinking, personality traits, and the the academic achievements** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Variables | t | df | Sig. (2-tailed) | Arithmetic mean difference | Stan-dard Deviation | 95% reliability interval | |
| | | | | | | Low | High |
| the development dynamics of the creative way of thinking | 2.749 | 193 | .007 | .30704 | .11168 | .08676 | .52731 |
| the development dynamics of the personality traits | 2.262 | 193 | .025 | .25932 | .11463 | .03323 | .48541 |
| the development dynamics of the academic achievements | 2.222 | 193 | .027 | .21319 | .09593 | .02398 | .40239 |

**Conclusion**

1. In Pedagogy, it has been proved that creative tasks play a very significant role in the development of the creative way of thinking. However, each period requires certain qualities that enable people to be successful in society. The formation and development of personality in the modern period is very important for the self-realization of people. Education processes provide good opportunities for the formation of these qualities.

2. Before the experiment, T-test analysis was used to check whether the difference between groups on variables of "the development

dynamics of the creative way of thinking of the students", "the development dynamics of the personality traits of students", and "the development dynamics of the academic achievements of the students" was meaningful or not from statistical point of view. The conclusion showed that there was no obvious difference between groups in the context of above-mentioned elements.

3. There was no obvious difference between the groups from the mentioned indicators perspective. As Sig was ≥0.05, the present difference was meaningful on the 0.05 level. The variables for the creative way of thinking was Sig=0.913, for personality trait was Sig=0.910, and for educational achievements was Sig=0.987.

4. After the experiment, T-test analysis was used to check whether the difference between groups on variables of "the development dynamics of the creative way of thinking of the students", "the development dynamics of the personality traits of students", and "the development dynamics of the academic achievements of the students" was meaningful or not from statistical point of view. The conclusions show that there were obvious differences between the groups. Thus, as Sig is <0.05, it can be said that the present difference is meaningful on 0.05 level. The variable for the creative way of thinking is Sig=0.007, for personality trait is Sig=0.025, and for educational achievements is Sig=0.027. By the obtained conclusions and T-test table, it can be said that experimental factors had serious effects over the experimental groups and resulted with the statistically meaningful differences between the groups in the second stage.

References

1. Keatinge M. W. The Great Didactic Of John Amos Comenius,part II, London, Adam and Charles Black, 1907, p 326.

2. Давыдов В.В. Проблемы развивающего обучения. М.: 1986, 240с.

3.Gilford J.P. The Nature of Human Intelligence. N.Y.:David McKey Co, 1967 p 538.

4.Эдвард де Боно. Латеральное мышление. СПб, 1997, 320 с.

5.Əlizadə Ə.Ə., Sultanova İ.N. Taksonomiya nəzəriyyəsi və təcrübəsi: müasir məktəbin işıqlı yolu. Bakı, 2008,172s.

6.Годфруа Ж. Что такое психология: В 2-х т. Т. 1: Пер. с франц.-М.: Мир, 1992, 496 с.

# On The Effectiveness Of Education At The University Of The Third Age

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## Abstract

This paper presents the content, objectives, methods and forms of work at the University of the Third Age in courses of Musical Topography and Natural Sciences in Society which are held at Faculty of Education, Charles University, Prague, Czech Republic. Reflecting the specifics of senior education, principles defined by J. A. Comenius are crucial, particularly the succession of the learning content, clarity and acquiring the reality exploiting all senses. These principles can be applied through experiential learning, which has an important effect – the retention of knowledge. Knowledge is also conditioned by a certain level of skills which are checked not only by tests, but also by interviews and practical activities, i.e. through the personal communication of the teacher and learners. This fact contributes to the attractiveness of the courses and to the fact that the amount of senior learners is annually increasing.

*Keywords: University of the Third Age, Comenius´ principles, Musical Topography, Natural Sciences in Society, Effectiveness of Senior Education.*

### Introduction

The University of the Third Age in the Czech Republic is being developed for about 30 years. This tradition follows the European trends in the field of education; first Universities of the Third Age (U3A) were opened in the 1970s.

The courses at Faculty of Education, Charles University are held in one-year cycles, each consisting of 90 hours. The main objective is to introduce problems relating to various scientific branches to the course participants; in this case, places and regions connected to the Czech music and the Chemistry from the view of interdisciplinary links and contexts. Another objective is to understand music as a peculiar tool or means of communication, i.e. to develop music literacy. The U3A learning objective is not identical with undergraduate studies. It is not so deep but seniors can learn more facts within interdisciplinary connections. In the field of music in the course of the Music Topography, the learning content deals with the music history, important Czech composers and performers, and with production of musical instruments as well. However, neither the development of musical abilities and skills as stated by Émile Jacques-Dalcroze who preferred the motoric education as the basic means (Jacques-Dalcroze, 1927), nor the development of early-age musicality according Carl Orff (Hurnik & Eben, 1982) are under the focus. Conclusions made by Jiri Kusak (2016) might be considered; he does not take the age into consideration but understands the musicality within the complex personality development. Kusak (2016) highlights the role that knowledge plays in interaction with musical abilities and skills. He distinguishes and defines following components of the knowledge spectrum necessary for the complete musical development of a person: “The performance-knowledge component reflects the individual’s level in terms of musical ability and skill, as well as knowledge, which are essential for performing musical activities, the motivational-preferential component focuses on an individual’s personality in relation to their interest preferences in musical style, genre, and music in general, the

axiological component refers to the internal emotional facilities and value orientation of an individual in the field of the (musical) arts and the socio-cultural component supplements the relevant information with family background in terms of a musically stimulating environment" (Kusak, 2016).

The course of Chemistry in society presents chemical elements and matters in relations to the history, philosophy, poetry and art. The focus of everyday common life was structured into several levels: motivation – Chemistry-our life, our future, not decline; application – Chemistry everywhere; methodology – Methods of studying chemical matters and reactions. The emphasis was paid on the balance of professional and social aspects, variability of teaching forms and methods (excursions, activities in laboratories, lectures), exploitation of university education (in chemistry, biology, agriculture etc.) which most participants had reached, and on the natural development of the team and friendship among the learners and also with the guarantor and co-operating staff. For this academic year (2018-2019), the topic will be shifted from chemistry to a wide field of natural sciences as a complex of subjects with interdisciplinary connections to other fields, having the title "Ancient elements not only through the lenses of natural sciences", where the water, air, fire and soil are dealt as the inspiration for various fields of social life, particularly in relation to philosophy, natural sciences, technology, art, and education (Zamarovsky, 2005, Kometz & Bilek, 2012).

The courses are organized partly in the form of lectures (10 hours per year), and partly as excursions (80 hours per year). The lectures are held at the beginning and at the end of each semester. However, we are aware that even the lectures should not be read in the traditional form of monologue. Only the lesson with interaction between the lecturer and listeners (senior learners) and those implementing various activities are attractive. Such an approach serves as a double indicator – of the learners´ success and teaching effectiveness.

No final exams are required for passing the courses. The learners´ knowledge and skills are continually tested in lessons and excursions by interactive communication. Therefore, the principles of the three-phase learning are exploited (evocation of the problem, awareness, reflection) into the lessons. In the first stage, learners´ preconceptions, perceptions of the problem, existing knowledge and experience are under the focus; in the final stage, various changes in knowledge and skills of all course attendants are monitored and analysed. However, learners´ knowledge is tested continuously through questions & answers, discussions, and interiorization of skills, opinions, attitudes during all excursions and lessons.

**Research Objectives**

The main research objective of this study is to identify effectiveness of the above described U3A courses. Reflecting the fact that no traditional exams are required at the end of the course, it is still important to know if the methods and forms of work are effective and can be further developed. That is why the learners´ input knowledge, particularly their imagination on musical reality and chemistry in society within the wide social context. The monitoring was held during the course and at the end so as to discover the potential increase in their knowledge. Collected data were considered from the view of their previous experience in music, or natural sciences, and their previous education. Most of learners had musical education at the primary school level only; ten participants played a musical instrument (self-taught), they attended concerts and watched musical TV channels. We also found out that all students had good musical ear. In case of natural sciences, particularly chemistry, participants learned the content only at secondary school and they had not very positive previous view on chemistry in everyday life.

**Research methods**

Both courses started in September 2018 (in 2018/2019 academic year) and two different methods were applied to monitor learners´ knowledge. In the Music Topography course, the method of interview was used to detect the input knowledge and the increase in knowledge during the course. At the end of the course, the written test with multiple-choice answers was applied. In the Natural Sciences oriented course, the method of interview was used and the presentation of seminar works on elected topics and follow-up discussions were exploited.

**Research sample**

Totally, 73 learners attended both courses; 55 participants were enrolled in the Music Topography course and 18 participants in the Natural Sciences course, both groups with participants aged 55+.

**Learning process and results in the Music Topography course**

The first lesson was organized on the place which was not common for most participants – on the organ loft in the church where lecturer acts as an organist. Within the entrance group using the interview, first, the attendants' preconceptions were identified on the organ playing, the sound genesis and the use of instrument during the mass. It was detected that 29

students had never been close-up to the organ console and had never been at the place where the church choir sang; 18 attendants did not know that the pedal works as an additional keyboard – they thought that the organ pedal has a similar role to the pedals of the piano or the harpsichord. Second, it was detected how the listeners perceived the pitch. Lecturer performed single tones in the basic position, then in the positions of the octave and two octaves higher and lower. Then he improvised a one-voice melody, later even short periods in different styles from early Baroque to Classicism. As a result, 17 students determined distinguished positions of tones (pitches) exactly. Third, the lecturer inquired the orientation of students in timbre and relationship between timbre and an instrument. He initially introduced registers with conclusive timbre of flutes and trumpets. All students recognized them; 16 students recognized the register of the English horn. Timbre of other registers could not be assigned to specific instruments, therefore attendants were asked to describe them in their own words. This time their language means and abilities to use metaphors and similes were monitored. Due to the difficulty of the task, the lecturer was alternating registers of contrasting colours, which makes perception of characteristics easier. The whole group agreed on the basic characteristics of timbres, 8 students characterized the sound most aptly. These 8 students were interested in music as a hobby and played musical instruments. At the end, students´ ability to perceive melody of known songs in organ stylization was inquired. The folk song Ej, lásko, lásko as a liturgical song was used for this purpose. It was found out any different stylization was a serious obstacle in the perception of melody for 17 participants. When performing further very known song (Dobrú noc) lecturer played the melody by the pedal in bass line. Neither the song, nor the placement of the melody in the bass were recognized. However, after pointing out what song was played, the students were able to sing it, although with a much simpler accompaniment. The third well-known song (Koulelo se, koulelo) was stylized as a choral prelude – 11 students recognized the song and described expositions of the main melody and evolution in intermezzos.

The presentation of the organ was a good motivation for further focus on the life and work of Antonin Dvorak who was an excellent organist and used his art in liturgical practice. The group of attendants visited Dvorak´s birthplace in Nelahozeves near Prague, including the church. This excursion was used for a further examination of musicality and musical memory of listeners – they fulfilled tasks identical to those at the first lesson (see above) but they were not in the organ loft but in the pews (the choir was too small). Therefore, they could not use the visual perception. However, the success in music perception was significantly higher; only 6 students were totally unsuccessful.

For monitoring and examination of musical memory and imagination of students and for the monitoring of their knowledge in the Czech music history and culture in general, written knowledge test consisting of 23 questions was applied. The test was structured into two parts: theoretical consisting from 14 items and other 9 questions focusing on music recognition. Results are displayed in Table 1 and Table 2; amount of correct answers is in the brackets.

Table 1 Results of knowledge test - Theoretical part

| Topic of test item | Number of correct answers |
|---|---|
| Nelahozeves – Dvorak´s birth place | 55 |
| Stay in America | 55 |
| Vysoka – Dvorak´s summer house | 54 |
| Zlonice – Dvorak´s youth | 54 |
| Name of one Dvorak´s opera | 54 |
| Dvorak´s work in USA | 53 |
| Luzany – composition for the castle chapel | 52 |
| Dvorak´s compositions in USA | 51 |
| Fates of Dvorak´s children | 49 |
| Names of other Dvorak´s operas | 32 |
| Definition of pentatonic | 4 |
| Explaining of American influences in music | 3 |
| Name of one Dvorak´s scholar | 2 |
| Names of other Dvorak´s scholars | 0 |

Table 2 Results of knowledge test – Music recognizing (n = 55)

| Topic of test item | Number of correct answers |
|---|---|
| Title of the listened composition – Stabat Mater (52), | 52 |
| End of the symphonic poem The Water Goblin (51). | 51 |
| Motive of the Wather Goblin from symphonic poem The Water Goblin (43), | 43 |
| Title of the listened composition – American Suite (2), | 2 |
| Title of the listened composition – the song Leave me alone (0), | 0 |
| Title of the listened composition – Concert for violoncello and orchestra (0), | 0 |
| Motive of the Mother from symphonic poem The Water Goblin (0), | 0 |
| Motive of the Daughter from symphonic poem The Water Goblin (0), | 0 |

To sum up, the verification of knowledge implies that the students are good at remembering facts on non-music reality – location data, biography, names of compositions learned by heart. In the result, all the students were able to explain the importance of Dvorak´s work, data of life, history of his family, names of some compositions. They learned basic facts at school and they were able to remember new facts after excursions. On average, 48 students from 55 responded correctly to the first group of questions; they reached 87 % of correct answers. However, on average, 16 students answered correctly the second group of questions about music recognizing, i.e. 29 % of correct answers only. Most of the compositions were new to them, and it is obvious that one listening is not enough for a permanent memory of several months.

**Learning process and results in the Natural Sciences course**

Topics of the science-oriented course focused on ancient elements comprised widely related to consequences, starting from principles of work in the science laboratory, laboratory directions, safety directions up to discussion ways of excursions planning and realization. Students were to write a seminar work on their own selected topic, present it to the others and conduct the relating discussion. Thus ancient elements were discussed in the philosophical discourse – from monism to Aristotle and search for the nature of the world, ancient elements and cognition in natural sciences, the water – from common use to sustainable life, the air – from the ancient element to the "clear bubble" of life, the fire – from the ancient element to "fire is a good servant but a bad master", the soil – from the ancient element to the "native heath". Other attendants focused on ancient elements and arts and ancient elements in education.

In follow-up discussions after public defends of seminar work presentations, the highest rate was awarded to those dealing with the origination of the idea of four elements, what the relation to monists was when searching for the nature of the world, how the water can be considered in continuum from the ancient element to everyday consumption and sustainable life, as well as the air from the ancient element to the environmental problems, the fire from the ancient element to the source of energy and sustainability of life, and the soil from the ancient element to problems with food and eating, their sources, distribution and consumption. Positive assessment was given to the so-called laboratory micro-practicum of effective and efficient experiments accompanied by appropriate works of music (Haydn, Bach, Ravel, Skroup), literature (Capek, Kodym, Seifert) and fine arts (Capek, Rabas). Moreover, excursions at fire brigade, rescue group, waterworks, sewage treatment plant, environment monitoring company, and edaphic laboratory. Final assessment provided by the students, who really worked as a cooperating community, was highly positive, which resulted in the preparation of follow-up study programme in this area for the next academic year.

**Conclusion**

The process of conducting courses, and particularly verifying the effectiveness of U3A education shows that seniors are able to remember data and facts, they are able to realize both the verbal learning and learning by doing. However, to remember often does not mean to understand/comprehend. Tasks connected to music and science activities were more demanding. In the field of music, non-verbal music perceptions were expected which were not commonly used by the students. In the field of natural sciences, deeper insights relating to problems in variation of negative/positive assessment of common life phenomena were required. If music topography introduces places and lives of recognised personalities in the field, listening to music provides additional information, which composers connected to various places refer to the listeners. Only within this connection of theory and practice the education can contribute to the personality development. Identically in natural sciences, it is necessary to search for wider connections which discover seemingly clear rejections of negative impacts without deeper understanding of the complexity of researched and assessed phenomena.

**References**

Hurnik, I., & Eben, P. (1982). Czech Orff School I: Beginnings. Prague: Supraphon.

Jacques-Dalcroze, E. (1927). Rhythm. Prague: Breakthrough. Available at: https://is.muni.cz/el/1421/jaro2008/DVT058/Jaques-Dalcroze-Rytmus.pdf.

Kusak, J. (2016) Recreational Musical/Dance Activities and Their Contribution to Shaping Musicality in Children and Adolescents. In Bernatova, R., Kania, S., & Sliwa, S., Edukacja na rozdrożu. Opole: Wydawnictwo Institut Śląnski (pp. 147–155). Available at: http://pedagogika.wszia.opole.pl/ebook/enr3.pdf.

Kometz, A., & Bilek, M. (2012). School experiments with topics four ancient elements. Hradec Králové: PdF UHK.

Zamarovsky, P. (2005). Case of ancient philosophy (In Czech). Praha: CVUT, 2005

# J. A. Comenius and Modernity

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## Abstract

The prominent Czech pedagogue Jan Amos Comenius laid the foundation for scientific pedagogy with the pedagogical theory, who devoted his entire life to education and upbringing of the people, and made a great contribution to the development of his independent science. Comenius's pedagogical ideas and works were not only for his own time, but also for the subsequent periods, and are now actual. These ideas are a bright beacon for our current schools, an inexhaustible treasure for the development of pedagogical science, guiding, guiding and guiding in many ways. One of the interesting points is that even if the time separates Komensky from us more than 300 years, his pedagogic ideas are still considered actual and applicable.

*Keywords: modernity; training; school system; didactics; humanism; moral upbringing*

### Introduction

The great educator, the founder of scientific pedagogy, J.A.Comenius, has developed a theory about training and education that has been developed and used in the modern era in which new learning technologies have developed. From this point of view, it would not be right to regard the phrase "Comenius didactics and generally pedagogical scientists working as post-modern" as an expression of mockery or misinterpretation. Comenius has created such an inheritance during his life of three hundred and fifty years ago that they are still fresh and up-to-date. Comenius has long ago seen his present-day education, its problems and developmental trends, justified his preconceptions about its perfection, and created a great pedagogical theory in this area. Interestingly, even when talking about innovation and innovation in education in modern times, we refer to J. A. Comenius's ideas to justify our thinking and appeal to him. J.Comenius's pedagogical ideas are still alive today, and we still learn from it.

### Research Aim

Yan Amos Komensky- outstanding Czech pedagogue who had exceptional services in forming Pedagogic Science, and his pedagogical principles has been studied in various counties in the world. The well-known Georgian pedagogue D.O.Lordkipanidze published a large-scale monograph entitled "The Didactic of Y.Komensky" (1949). In Azerbaijan, the national scientific conference was held in 1992 on the occasion of the 400th anniversary of the great educator and valuable ideas were recorded about Komensky's pedagogical theories.

Y.A.Komensky is included in the programs of the Pedagogy and History of Pedagogy taught at the higher pedagogical education institutions in the Azerbaijani Republic and is being taught at higher education institutions since the 20th century.

In contrast with previous studies, the main purpose of our research is to highlight the importance of Y.A.Komensky for the modern education system, and no matter three centuries has gone since then, to analyze the current issues in the context of contemporary education requirements and development trends, and to compare them with today’s education demands.

### Research Methods

While working on this topic, Jan Amos Comenius works were applied, the pedagogical literature about him was studied, comparative, theoretical analysis, analysis, compilation, generalization, systematization and other methods were used.

### Research Results

J.A.Comenius's "Great Didactics", "Open Gate of Languages", "Parent School", "Home Luggage School",

"General Advice for Improving Humanitarian Affairs", "Laws of Well-Established School", "Definition of Real Method" or diminishment from the school "and dozens of other pedagogical works play a major role in shaping pedagogy as a science, and are also rich sources of valuable ideas in modern times.

J.A.Comenius, has built a solid foundation for pedagogical science with his rich pedagogical ideas, for years, these ideas have kept their relevance, have not lost their significance, have been widely used and widely used in many countries around the world, still is done.

This broad range of pedagogical ideas of J.A.Comenius, during the last centuries, when information technology and communications have not developed rapidly, is due to the fact that these ideas are deeply rooted in the scientific basis and useful in subsequent periods. Many of her ideas for the development of her pedagogy science are the development of a classroom-based education system, the creation of an appropriate school system for children and youth, age-related pediatrician, status "," bringing education and upbringing to life, putting humanism and humanity on the basis of education, "school life, bringing life to school," etc. as well as dozens, hundreds of ideas and ideas are still lived and used today.

"Comenius acts as a great democratic, social reformer who is thinking of human society, based on humanism, equality and freedom, in his" General Advice on Improving Human Works "(3, 7).

In his teaching theory, J.A.Comenius, has described the school, teaching, and education as part of nature, characterizing people as a part of nature, proving that nature is constantly evolving, that it can develop through education, and has created an inexhaustible treasure of modernity. He argued that "the human being is part of nature" - puts the principle of nature in education, justified the connection of nature to nature, and also to the nature of man, and emphasized that education was more perfect and more conscious through the method of nature.

Such ideas as humanism, national and universal values, human rights, protection of freedom and health, attitude to nature and social environment, education of the growing generation in the spirit of liberty are important as one of the main factors characterizing modern education. It is no coincidence that the first basic principle of the state policy in the field of education in the “Law on Education of Azerbaijan Republic” is the principle of humanism. J.Comenius, also called the school humanity, a school of wisdom, a humane workshop. He wrote that in order to train young people, all educational institutions should be a real school, a humanist workshop. The main objective of the school is to disseminate common wisdom in society. "People who are good schools, good textbooks, good institutions, and people's educational methods are happy," said. Comenius,, in the education and education of the people. J.A.Comenius, pedagogical heritage is so rich in universal and humanist ideas that they directly address the new reforms, which are in line with our modern-day requirements.

Comenius's humanism appears in his attitude towards teacher, in all his remarks about the teacher. He was like a teacher who shed light on the sun, the fruit-bearing garden, the writer who created the work, the artist who created the paintings, and appreciated the teachers' kind attitude to the pupils and compromising on certain matters. Comenius wrote that if teachers do not break the hearts of the students with harsh words, they will be motivated by their fatherly love, gratitude and admonition, they will tell them that their work is pleasant and passionately, motivate the most industrious students, show compassion to children, wander in knowledge, they show more enthusiasm. "Good teacher is not only trying to look a good teacher but also a really good teacher, a teacher with all his substance," said the educator, referring to the basic qualities of "really good", "teacher of all essence", his personality, qualities necessary for teacher personality, but also characterizes the teacher's professionalism and emphasizes qualities that require the teacher as an important professional qualification in modern times.

The views of the teacher on J.A.Comenius’s pedagogical ideas are also of great importance today. He showed that, the teacher who did not love the profession, the subject taught is the shaded shadow, the rainless cloud, and the light bulb. Whoever loves science, who constantly teaches what he teaches, is a tree that endures on its roots, feeds its own juice, and therefore grows, grows green, flower and fruitful. The good teacher not only uncovers the awareness of the children, but also the water of the rivers, which is hidden in the mind of the pupil, and not the water flowing from other rivers. The teacher should be an example of the simplicity of work and dress, the example of the dexterity and workmanship, the modesty of behavior and the silence, and the example of intelligence in public life.

"The good teacher says, not with the water of the other teas, but the water of the schoolchild, hidden by the consciousness of the children," - as we pay special attention to the sentence, we see that the great educator goes very far ahead of the teacher's potential - and in the meantime, he has put forward his demand to develop their thinking and imagination.

J.A.Comenius writes: "Teachers should be able to know, know and be able to master the minds of all pupils -

wise, fluent in their language, and their hands for writing and other activities with constant examples, advice and practice."

One of the most important problems in modern times is the development of thinking and imagination of students during the training. This is not to fill the pupil's head with knowledge and information, but to ensure that their future life, the community's active life. At that time wrote about J.A.Comenius question of today's life, society: "Those who turn their workshops into easy and pleasant occupations (teachers - MI) make the pupils' memory as little as possible and teach them only the most basic aspect; and the rest to present for independent study "(1, 129). As you can see, J.A.Comenius does not justify didactics in pedagogical ideas. He also attaches a great importance to the psychological characteristics of pupils, as well as important psychic qualities, as a competent psychologist and considers it important to develop them.

When we consider modern school and modern requirements, it is clear that from the point of view of memory to thinking, from the school of thought to the school of thought, the transition to a school of imagination is a very urgent task. Here are some issues such as student-centeredness, outcome, and focusing on one of the key requirements of the modern era. At present, interactive learning methods that are widely used in our schools cause the learning process to take place in such a developing environment that the learners are guided by the interest of researchers, who are interested in responding to the research question and are watching the problem from the beginning to the end. Here is more self-esteem than memory and memory. The solution of the problem is sought, the past knowledge is remembered, and independence also develops. Under the teacher's guidance, students are searching, thinking, comparing, analyzing, and making conclusions. All this leads to the development of thinking and imagination, where the idea of J.A.Comenius is less educated, and the idea of learning more and more is realized. Comenius wrote: "To teach young people properly is to fill their heads with all kinds of words, sentences, phrases, ideas and ideas, and to develop their ability to understand things" (1,139). Taking into account the fact that modern learning goals require this to happen, it is possible to conceive of the value of this idea expressed by Comenius in a very contemplative manner.

Modern teacher is not the only source of knowledge given to students. Modern Teacher Guide teaches students how to learn. said that at that J.A.Comenius t time it was justified: "To find ways and to discover that lesson teaches less, and learners learn a lot; school noise, headache, useless labor, fun, joy and strong success "(1, 37).

Coming to this point, which is so useful today for the understanding of the knowledge of the students by reasoning, is to teach all the things that are taught to the students by teaching them the reason and the reasoning of the mind. That is not to teach just how everything is created, but also to show why it cannot be otherwise, "knowing a certain thing means understanding it in its relationships" (1,145). From this point of view, everything in the school needs to be taught through the study of causes.

J.A.Comenius writes that the school should be organized so that what has been learned is preceded by the preceding ones, and the pupils are reinforced with the latter. "A well-educated person is a tree ending on its roots, fed with its juice, and therefore constantly growing, growing, flourishing and yielding," said Comenius (1,141-142). The expectation of succession, one of the most important requirements of today's didactics, is directly contradictory to these ideas

Comenius, in his own didactic teaching, was of the opinion that the learning process should be carried out in such a way that it is now more complicated than a lightning, closer and farther than ever known, from the general point of view and from simple to complicated. Although it is not always possible to adhere to these rules, these guidelines have not lost their importance.

Comenius’s ideas about textbooks, workshops are still so important. By defining rules on comic books, he wrote that each class should have its own book. All the knowledge should be interpreted in the book so that it is impossible to find anything else in the future, so that it is possible to find every necessary knowledge there. Each of the books should reflect the entire course of the relevant class. All textbooks should be designed so that teachers and students do not get as much as they are in the labyrinth and get a delicious taste of the beautiful garden from here (1, 280-281).

Science proves that human beings are not born with talent or talent. These are only opportunities. The main purpose of education and upbringing is to develop these opportunities. Without these opportunities, it is impossible to develop a desired talent. J.A.Comenius wrote: "There is nothing to entrust man from the outside but only what is embodied in him should be developed, revealed and highlighted in the importance of everything" (1, 51). With these thoughts Comenius puts forward important tasks such as revealing the potential of the students, developing their thinking and reasoning. At the same time, it advises teachers not to engage in work that is beyond the reach of their children and requires extra strength.

J.A.Comenius, referring to the ideas of ancient Greek philosophers and some thinkers, demanded that

children take into account the individual characteristics of the children, both in training and in education. He wrote: "The abilities of some men are sharp, they are one; some of them are soft and elastic; those are hard and invincible; some tend to be knowledgeable, and some enjoy more than mechanical activity. "The great educator divides the children into six types and analyzes the characteristics of each of these species. Also, it should be noted how to treat children with these features.

One of the greatest services of J.A.Comenius not only in the history of pedagogy, but in general for all historical periods is the development of the scientific bases of the classroom system. Bearing in mind that despite the fact that during the last 400 years of this process, but not one or two dozen training systems, training forms and replacements have been replaced after some time, the classroom system has existed, survived and is still in use at this time.

One of the major challenges facing modern education is to ensure that it is student-oriented and self-centered. In other words, it should create opportunities for the students to develop their skills, develop their thinking, lead to the formation of an active, vital, entrepreneurial personality by identifying the potential of the educators. Students' perceptions and emotions should be developed in the learning process and social and communication skills should be developed. Education also needs to develop the intellect of educators by providing them with their mental and physical needs, and ultimately stimulates self-development and self-education. J.A.Comenius writes: "If none of the students is forced to do anything in the face of their desires, then nothing will hate him and his mind will not be severed."

J.A.Comenius's demand is that the modern teaching needs to satisfy the needs and interests of the pupils, is based on the organization and conduct of the pedagogical process in the context of "subject-subject", "pupil-student" cooperation.

Coming-up sets a number of principles of training: visibility; consciousness; systematic and consistency; powerfulness; Strengthening of knowledge. At the same time personal example of education; admonition; imprint; show methods of repetition and punishment. It should be noted that although these new forms and methods have been developed both in training and in education, these principles and their methods are used today in the training and upbringing process.

In addition to the didactic views of Comenius, who brings the new idea to pedagogy, the belief in the great power and abilities of pedagogy is also important for today. His direct thoughts about morality, morality, wisdom, kindness and other qualities give rise to the fact that it is necessary to utilize the influence of religion to the moral perfection, not to superstitions, chronology; He considered the use of religion as one of the main means of education. "In general, all human beings should be brought up for humanity," says Comenius, noting only his contemporaries, but also the future generations of people who are engaged in upbringing, an important program about the basic purpose and substance of education. He also tried to prove that the great power in the moral formation of the society is exactly the same.

"Nature is an example everywhere," said Comenius, along with a number of methods of instruction, attaches great importance to the example, and highly appraises the teaching of youngsters as well as parents, as well as with teachers, parents, and thus considers them to be in school together. Comenius writes: "It is more appropriate to educate young people in the same place than in many young people, for it can be a great example of the other and can be of great benefit and pleasure in the circumstances that inspires them to work" (1, 67).

Comenius notes that, in childhood, samples are stronger than those of counseling and direct their activities. When children are shown to children in a clear way how they see a job, children perform it without any command or instruction.

J.A.Comenius was opposed to teaching at school about the things that are not necessary for life. He noted that "everything should be taught not for school, but for life, so that nothing is missing when it leaves school" (1,172). What is our school demanding today? First of all, cultivate personality with vital knowledge and skills, knowledge and skills that will be competitive, vital for people in life, have vital importance.

The idea of a "mother tongue school" for the first time in the history of pedagogy is one of the main ideas within the ideas of, J.A.Comenius which holds eternal and present importance. The great pedagogue, who proposed the idea of "a native language school before Latin school," argued that the arguments were based on the idea that J.A.Comenius was often used by great educators and educators in Russia, which has resulted in strengthening. J.Comenius made six arguments on this occasion:

1. All individuals should study in all areas.
2. All goodness should be brought up in the world.
3. It is early to see who is at the age of six which is profitable for occupations and arts. The children of the only wealthy educated, or schoolteachers were not born for the high titles so that the Latin schools could only be opened to them, and the remaining children would not be left to despair.
4. Our general method does not only focus on the Latin language, but also seeks to improve the mother tongue of all peoples equally.

5. Teaching a foreign language without getting into the mother tongue is a great thing to teach a child to ride horses without teaching them to walk.

6. Because we tend to have real education, students can easily go to the things that are related to the outside world with the help of the mother tongue books, which show the names of things.

With these provisions, J.A.Comenius maintains a native language school for all children without any trace and sex, and has shown that it is not necessary to separate young people from early ages and to some of them to hate and hate them. It is necessary to carry them all together, as much as possible. He also pointed out what the lessons would be in the "Native Language School", what the subjects would be and what knowledge would be given to the students.

The great educator also provides tools that are useful for achieving this goal - grades, books, and some useful ideas about their features. J.A.Comenius shows that each class should have its own books. These books should differ from one another, rather than by content. The books should be based on the principle of the childhood, should be well-arranged, adapted to the age characteristics of children and should cover all their mother tongue. Also, all technical terms should be in their native language.

J.A.Comenius, considering her mother tongue as a key tool in studying foreign languages, showed that if children learn the languages of other nations, they should be in the transition from the native language to the Latin language school. In other words, children should first master their mother tongue, its subtleties, and then learn other languages, because practice also confirms that foreign languages are better learned so that children have better mastered their native language. This is also why it should be that the growing generation deeply embraces their national culture, the traditions of the people they belong to, and the moral values created by their native languages.

The following thoughts expressed in the article "The mother tongue" by the founder of the Russian science pedagogy K.D.Ushinskiy, who consider their mother tongue as a mentor of the people, are sung in harmony with J.A.Comenius's ideas. K.D.Ushinsky wrote: "When learning a mother tongue, she does not only learn conditional voices, she also has a spiritual life and strength from her mother's tongue. The mother tongue explains in a way that no educator can explain; it includes a child in the nature of the people surrounding it, in a way that the society in which he lived lives, his history, and his desires, that no historian can get to know; Finally, he gives some logical insights and philosophical views, of course, that no philosopher can give it. "Comenius had done this two centuries before K.D.Ushinsky and put forward his precious views on the importance and necessity of the training in the mother tongue. In his pedagogical theory J.A.Comenius interest in moral education is also interesting. Comenius suggests sixteen rules of morality development in the "Great Didactics". All of these rules have high moral feelings such as benevolence (wisdom, morality, perseverance, justice), and all of these methods and tools of development have a special place in the context of moral education. In addition to these rules, Comenius's other works It gives special importance to a number of methods and tools used in the day, in particular patterns, habits, regime, extra-curricular activities, games and others.

Thus, the progress of J.A.Comenius's pedagogical ideas, the roots of humanism, science, nature, humanity and innovation, which is based on the works, give rise to the fact that it is not only yesterday's, but also today's pedagogue of the future. It is clear that his ideas, ideas and theories that have passed through the centuries will be echoed by the future as well as the future school, the development of pedagogy and pedagogical ideas. Comenius wished a great future as a future teacher, dreaming of the future. He served as a citizen of his era, with a great goal - to serve humanity for the sake of later life.

## Conclusion

Y.Komensky is a novice educator who has created a pedagogical heritage not only for his own period, but also for next generations. His ideas that are in the level of the globally important pedagogical principles, creation of class-lesson system, belief in training's great opportunities and power, idea of holding first education fo children in their native language, organization of school system according to age characteristics of children, focusing on the principles that even today are considered as important didactic principles, ideas about training methods and hundreds of other ideas enriches todays's pedagogical principles and its history. These are such ideas and perspectives that even in the future these will be considered applicable and will be used in grat schale.

## References

1. Comenius J.A. Great didactics. (Editor and author of preface prof. Farrukh Rustamov). Baku: "Science and Education", 2012.

2. Theses of the republican scientific-practical conference dedicated to the 400 th anniversary of J.A.Comenius. Baku: ADPU, 1992.

3. Pedagogy of History and Modernity. Leningrad, LPPI im. AI Gertsen, 1970.

4. Лордкипанидзе Д.О. Ян Амос Коменский. Москва: Издательство «Педагогика», 1970

# Development Training Within J.A.Komenski`s Pedagogical Thoughts

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## Abstract

We see that Y.A.Komenski stated the principles of the development training, humanism, democracy and nature conformity as the principle idea in the training, he selected attentively the educative methods for the proper moral-ethical foster formation of the child. Researching education targets, directed to the personality, we witness that Komenski`s pedagogical heritage is the valuable alleging source for the solution of the modern actual problems. Availability principle "Golden rule" for the teachers is the principle resource of the development training. So, in this process, the child tries to perceive everything with the senses. When the child learns the environment by the feeling of the environment, touching, seeing, hearing and tasting, they can be memorable and experienced based.

*Keywords: development training, conformity to nature, sensualism, humanism in nurture, transparency at the training, Komenski`s thoughts at the modern education*

**Introduction**

The preferable target of the curriculum education system, which successfully carried out in our country, is the development of the personality of the child. This target is the humanitarization of the training process, formation of the potential for the profound development of the child. Komenski`s merit to the pedagogical heritage is that he approached critically to the bringing up system of the middle centuries. Considering the ideas of the ancestors he made so pedagogic heritage that this heritage did not lost its actuality. For the first time, Komenski developed comprehensive scientific theoretical and didactic basis of the personality in pedagogic history. Development training idea in Y.A.Komenski`s all works expressed as the principal idea and there was noted the natural capabilities of the child and formation according to the nature conformity.

**Research Aim**

Appealing to the pedagogical ideas of great pedagogue Komenski in this small scale research work, researching the several directive problems standing before the modern education, it is important to teach actual issues in comparative method.

When we look to the history, analyzing the works of the known pedagogues, philosophers, scientists, we see that, depending on the period of the time and requirements of the period, there are several approaches on human formation. The study of the human personality, its comprehensive development up today was one of the problematic fields for each period.

**Research Methods**

The methodological basis of the research is constituted by the total of principles, methods, aids and theoretical propositions applied for the study, cognition and modification of pedagogical facts, cases and processes. The research methods used included comparative-historical analysis and theoretical analysis.

**Research Results**

Since the developing, target oriented training fulfill three principle function, they shall be considered in training and bringing up process.

-pedagogical-there are the factors effecting to the development on the training of the pupils:

micro environment, communications, personal experience and methods.

-psychological: psychological possibilities of the pupils, providing the perception of the training results: attempt, interest, character peculiarities.

-social-it involves giving knowledge and skills related to morality, labor, science, art, religion and so on

**Conclusion**

Thus, we see that Y.A.Komenski who is a well- known educator in the classical pedagogical literature according to his humanist and democratic thinking highlights the essence of evolving training in the harmonious development of personality and emphasizes the importance of this idea in the modern education-upbringing process.

The basic principles of the training should be based on an identity-oriented and self-directed model, and the objective of these principles should be directed to the creative organization of the lesson and humanistization of relationships.

**References**

1.Abbasov A. Ahmadova A. “Preparation of the curriculum and application problems” Baku, 2008, 210 pages.

2.A.Huseynova “Principles of the education” Baku, 2014, 400 pages.

3.B.Aliyev, K.Aliyev, R. Jabarov “Pedagogical psychology” Baku, 2006, 254 pages.

4.Farrukh Rustamov “History of pedagogy” Baku, 2006, 748 pages.

5.Komenski Y.A. “Selected pedagogical compositions (texts)/ Y.A.Komenski, in 2 volumes T.1-M; Pedagogy, 1982, 656 pages.

6. Y.A.Komenski`s merit to the development of the pedagogical science. http://moluch.ru.conf.ped.archive

The role of the education is unquestionable for the growing of the citizen, acquisition of the ethical and moral values and achievements, acquired by the mankind and modern youth. Formation of the developed and capable personality is the key task of the traditional and modern education. Education is the worldwide phenomena and it has form, content, as well as, peculiar functions. For the first turn, it is important to determine development possibilities for the successful solution of the problem stand before the training. The development shall positively influence to the child`s speech, explanation of the ideas, perception and imagination and independent growth, as well as, it shall strongly influence to the formation of pupil`s sensitive comprehension. So, the sensitive comprehension is the initial foundation for the understanding of the environment and formation of the concepts.

Still before our century, it is apparent that the role of training in comprehensive development of human was expressed in Konfutsi`s works who made deep classic pedagogical heritage.

By times, regarding with the development and demand of the society, this idea was developed in the works of other classics and considered one of the important tasks of the training. Development training in the pedagogical works of M.Monten, Y.A.Komenski, J.J.Russo, I.G.Pestolotsi, A.Disterverg and others was one of the leading ideas.

Y.A.Komenski was one of the founders of the new pedagogical period (1592-1670). He made enormous achievement in pedagogic scientific history and made basis for the formation of the scientific pedagogy. Komenski was against class racism, torture of human on the human, based to the humanist ideas in his works, loved strongly his motherland and was the opponent that all nations and folks shall have equal rights of living. Komenski`s merit to the pedagogical heritage is that he approached critically to the bringing up system of the middle centuries. Considering the ideas of the ancestors he made so pedagogic heritage that this heritage did not lost its actuality. For the first time, Komenski developed comprehensive scientific theoretical and didactic basis of the personality in pedagogic history. Here, he showed what to learn, what to teach, as well as, how to learn and how to teach (4) 28).

Development training idea in Y.A.Komenski`s all works expressed as the principal idea and there was noted the natural capabilities of the child and formation according to the nature conformity. He states that the nature is unite, there everything is reasonable, harmonic and governed with the rules. Nature does not love the rapid changes, everything passes gradually, nature does not bear to the atrocity, takes peculiar point in each action, everything flows naturally. There is the conclusion that since the child is the part of the nature, his bringing up should pass naturally as well.

Idea of nature conformity takes place in the grounding of the principle “Teach everything to everyone”, in other words, since the human is the part of the nature, he can be taught everything rapidly and smoothly from childhood to full age. There is ratio of the creative imagination and contemplation-different aspects in mental capability of the child. In this age, creative and skilful children (physiologists characterize them as right hemisphere), as a rule, forms various figures from paraffin, painting and application, they have broad imagination and carry out experiments. Such children differ with the emotionality, irateness, non-arbitrary good memory. The children with comprehension capability (physiologists characterize them as left hemisphere) have higher speaking skill. Such children have high level of self management not corresponding to the age, therefore, the arbitrary memory more developed in a children like them.

Children with the several characters differ from each other with the word perception ability through self-control. Sign system, based by the children with the cognitive ability, grounds on the character.

From this point of view, we can made the conclusion that the basis of the perception shall compose the word, as well as, the available mean, there shall be direct effect of the objects and events to the sensitive organs. Child shall have "the sensitive experience with environment and world and he shall have the opportunity to compare them with the characters of the conversation, music, children shall pass the experience of expression of feelings, paintings and modeling. The result of the activity for the children will have the significance when he positively evaluates the ability and the best possible action. There is important term that each child succeeds, to take the passion from the acquired result.

The preferable target of the curriculum education system, which successfully carried out in our country, is the development of the personality of the child. This target is the humanitarization of the training process, formation of the potential for the profound development of the child.

In his work "School of mother`s embrace" Komenski teaches the children how to make the ground of the knowledge on various disciplines. Astronomy teaches the sun, stars, geography place of living, farm, river, plane, mountains, history teaches the passed day, present and past, dialectics to make a proper question, to learn the labour, cut, build, settle and other activities (5).

It is true that if we teach child to connect knowledge with the life, this knowledge will help him to acquire the life skills and the child will feel the close relation among the events happened in the world (nature, society). Integration which is the strategic line in modern education makes the complete condition for the implementation of this idea.

The content of the various disciplines in integrated curriculum trainings is taught at the same time, it covers several strategies. For example: all units and content lines of the discipline "Life Science" at the primary classes combines a lot of disciplines. If we look to the content line of "Nature and society", we see the combination of the disciplines, based to the biology, geography, natural science, earth science etc. The disciplines, taught in a such way, make the basis for to conclude and to make supposition on the learnt knowledge, growth of the cognitive ability of the pupils. Process of the acquisition of the cognitive skills happens on the basis of the senses referring to the person. Each person percepts the heard and learnt knowledge transfers the contemplation to the cognitive presumption. At the result of it, the cognition according to the cognitive skill forms. In this case, making pupils familiar with the environment, they form the ability of feeling of the space with visual body and carrying out the transformation on the basis of these senses. Pupil`s sensitivity forms to the colour, line, form, space, beauty, ugly thing. Integrative curriculums are the curriculums forming inclination of the society to the school. The main argument consists that the pupils easily learns all fields of the world through integrative trainings and to perceive the world, so, the world consists of the unity of space, time, alive and things. The education of the person, possessing the ability of proper organization of the life in the world, shall be carried out in connection with the world. World shall be unit, and there shall be the connection.

In this process, pupil`s cognitive ability of space and environment is formed. Idea of the child about seen world forms, individual approach to the person, events, things, traditions forms, he analyses the learnt thing, studies what is good and bad, he tries to correct the bad ones.

Nevertheless the basis of the world vision of Y.A.Komenski consists of the sensualism, the religious vision also played important role for the forming of the ideas. Therefore, he thinks that the sole consists of three component-education, compassion and pious character.

Basing on the nature conformity principle at training and education at "School of mother`s embrace", he basis the ideas on the development of the natural possibilities and capabilities of the child.

Alleging to the Christian religious belief "School of mother`s embrace" he states that children are the spiritual beings who sent by God, they belong to God, therefore, they need special care and love, they open embrace and kiss them. As well as, other ideas are valuable and they bear the significance in the training and education process. The feeding and nutrition are not enough for the children, their soul shall be brought up as well. They shall know Allah for the first time, they shall learn his miracles, secondary, they shall able to control internal and external behavior with their smart character and attention. Basing on it, we shall state that the child shall be fostered according to the ethical-world vision and scientific and religious imaginations.

Humanism and democracy are the significant valuables in the pedagogic ideas of Komenski.

Availability principle "Golden rule" for the teachers is the principle resource of the development training. So, in this process, the child tries to perceive everything with the senses. When the child learns the environment by the feeling of the environment, touching, seeing, hearing and tasting, they can be memorable and experienced based.

In a very sense, these ideas do not lose their actuality in the curriculum educational system and shall be considered two

basic principles for the creation of the child inclined environment.

-Learn of the environment with the things and surrounding persons on the basis of the mutual relations and getting the knowledge;

-Considering the interests, needs and strong sides of the child for the provision of the development and study of the children.

Such a training environment plays important role for the development of the contemplation, social, emotional, physical and creative development. Teachers form the securable and impacting environment from the physical and psychological point of view, they support the development through the games, various means and other children, mutual relations with adults.

Training shall form joy of children while perception of the training materials. If we approach to Komenski`s ideas from the point of view of the pragmatists we can state the stand of J.Dyunin like this: explaining the logic and psychological sides of the problem: when we say logic we mean the discipline, when we say the psychology we mean the interests. For example, the history is taught to the pupils as if the pupils shall only learn the history, so, this is useful for them. Even if it is far from the daily life experiences, in a real sense, the history helps students to connect the life experience, traditions and activity of the organizations with the past. The instruction of the history shall enrich the life of the person with content, information and world vision and shall make them to the free person (2).

In reality, these ideas are the principle requirements of the modern education up to date, pupil shall closely connect with environment during educational process, from this point, his creative and research way shall be learnt. I. Pavlov states in his work “The role of the second signal system in the perception of the environment” the physiologic basis of the perception of the environment provides the vision, hearing, tasting, odour and other analyzers with harmonic activity. The imagination will be more content, apparent, colourful and rich depending on the quantity of the analyzers of the cognition process.

Education problems play important role in the works of Y.A.Komenski, again stresses the unique character of the training and education. He recommends that the ethics of the heart is the principle matter in the formation of the personality and by this way, we can bring up compassionate youth. It is necessary to select education methods for formation of the proper moral and cultural education of the children:

-Continuously make example on goodness.

-To give timely and smart recommendations.

-Moderate discipline.

Komenski considers important to observe the definite principles on the fostering of the child personality.

Komenski preferably to give the cognitive education for the children, he considers the education of the heart, soul, to grow up the sensitive, compassionate, religious person (6).

It is important to bring up the children with the definite requirements and foster them according to these principles, by this way, he will know himself and deeply understand God with the perception of the essence.

-To observe the moderate way-according to the requirements of the nature and to teach them the feeding and drinking, not to make the excessive consumption.

-To teach the accuracy-to keep accurate the body, meal, cloth as the rule.

-To respect the adults –to teach the children to behave with the adults and respect their words.

-to teach them to the benevolent action-to be merciful for the others, to be aside from the sense of the envy and greedy character.

-To teach the them to the labour-to stay aside from laziness and so on (6).

Komensi considers the principle target of the education to prepare person for the eternal life in his works and according to this he recommends to structure the education on two directions: cognitive bringing up and ethic religious fostering. Therefore, there is conclusion that beside development of the cognitive qualities in the formation of the human personality, to develop moral and ethical qualities in systematic form.

Komenski especially stresses the role of the suggestion at “School of mother`s embrace” within the frame of the bringing up of the child: God endows the children with the ability of imitation of everything, therefore, they want to imitate everything in front of their eyes. In this point, it is recommended for the parent to be attentive, to regulate the motion, to be mutually respectful in the conversation (3).

Stating the role of the suggestion, he stated the significance of the personal example of the teacher in the education and training process of the child. Beside the observation of the discipline in the education process, considering the age characteristics of the children, teacher properly directs their flexibility. He states that the discipline can be provided with good words, behaviors and with the love to the children. It shall be approached seriously to the discipline in order to protect the threat and respect, in case of approach with humor or anger, in this case the relation may lead to laugh and contempt.

Continuous education concept plays important role in Komenski`s works which is important in modern approach.

Researching Komenski`s pedagogical ideas, we witness his significance to the child personality and its flows from his democratic and humanist approach.

Main line of the modern education is the humanitarization of the teacher and pupil and pupil-pupil relations (3.14). It is especially important nowadays, so, the humanitarization of teacher and pupil relations is the important condition for the development of the personality of the pupil and it is actual for the modern school. However, one direction approach to the humanitarization of the education would be one sided approach. So, humanitarization of the education does not only envisage the formation of the high, moral psychological climate, there are two main criteria: the humanitarization of the education envisages direct development of the pupil in education process and making available environment for his development.

Komenski considers the observation of the main principles in the proper bringing up of the child personality.

Komenski`s ideas are the actual today who attentively approached to the child personality centuries before.

Humanitarization of the education envisages the change of the approach to the pupil, to approach to his personality with respect, to discover the skills and capabilities of the pupil and their development.

Appealing to the pedagogical ideas of great pedagogue Komenski in this small scale research work, researching the several directive problems standing before the modern education, it is important to teach actual issues in comparative method.

When we look to the history, analyzing the works of the known pedagogues, philosophers, scientists, we see that, depending on the period of the time and requirements of the period, there are several approaches on human formation. The study of the human personality, its comprehensive development up today was one of the problematic fields for each period.

As you know, our developing state and society put the following tasks on the formation of the personality with the comprehensive development:

-the formation of the personality who knows deeply the native language, learning the national and universal values, evaluating human labour and human liabilities, approaching respectfully to the democratic principles, learning the modern technical and communication means, living independently and acting independently and developing independently, learning the necessary knowledge and skills according to the requirements of the society, able to create the interpersonal relations.

The principle of humanitarization of the training serves to the social, world and cultural ideas. Education ensures the development of the cognitive abilities of the mankind, formation of the morality and physical development. Therefore, while composing the standards of the education, cognitive, emotional and psychomotor taxonomies are governed as the theoretical basis for the determination of the anticipated results of the pupil on each phase in any level, it is put as the task the personal formation of the educated person and change to the equal right subject while training and education process (2.67).

New training technologies provide the basis for the intellectual and moral development of the pupils, so, their research make possible to express clearly pupils` ideas and with the logical subsequence. Such methods provide the development of the creative abilities of the pupils and form high communication culture. Since the developing, target oriented training fulfill three principle function, they shall be considered in training and bringing up process.

-pedagogical-there are the factors effecting to the development on the training of the pupils:

micro environment, communications, personal experience and methods.

-psychological: psychological possibilities of the pupils, providing the perception of the training results: attempt, interest, character peculiarities.

-social-it involves giving knowledge and skills related to morality, labor, science, art, religion and so on

Thus, we see that Y.A.Komensky who is a well- known educator in the classical pedagogical literature according to his humanist and democratic thinking highlights the essence of evolving training in the harmonious development of personality and emphasizes the importance of this idea in the modern education-upbringing process.

The basic principles of the training should be based on an identity-oriented and self-directed model, and the objective of these principles should be directed to the creative organization of the lesson and humanistization of relationships.

# Learning At Working Place: Enhancing Teaching Competences Through Project Activities

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## Abstract

Expanding the quality of teaching competences in higher education is one of the most important topic in the process of creation educational policies. Universities in Bosnia and Herzegovina (BiH) consented the Bologna process which had an intention to create the unique European system of higher education. This article is an attempt to present a situation in higher education with a constant need of developing teachers' competences of academic personnel. Enhancing the quality standards in higher education demands a continuous work on transformation of current syllabus and working plans. Their correct appliance is the source for development of the educational policy quality. One of the models of learning at working place and professional development of academic personnel was the project Training of teachers and assistants at the University of Sarajevo for promotion of the Bologna process with an aim to improve quality of educational process. This project resulted with positive feedback showing that learning at working place is applicable, needed and successfully accepted by the participants. The intention of this paper is to present the current situation in higher education. Teachers' competences are in the main focus. The quality of higher education relies upon quality of teaching skills. Therefore, learning at working place is one of the modes to enhance quality of teaching process and to raise teacher self-confidence and proficiency.

*Keywords: learning at working place, teaching competences, project, academic personnel*

Lifelong learning is a deliberate and voluntary act. Many reasons influenced people's dedication to spend their free time in order to increase their knowledge. Lifelong learning can enhance teachers' efforts in maintaining and improving their professional skills. It also could provide teachers with more and better information due to the improvement of teaching process. As regard to constant professional challenges, permanent learning is related to further expansion of teachers' skills as a response to altering professional requests. Learning at working place can be used to develop teachers' needs and maintain their effectiveness. If they feel that they are being invested in with learning opportunities or skills' training, teachers would be more motivated and ready to participate in additional activities at their working place. The main idea of the Bologna process is to form a flexible and efficient higher education in Europe. Such an education is supposed to be comparative and competitive on the world market of knowledge. As regard to BiH, it could be said that this process is not an easy one and still looking for an appropriate implementation.

The academic community in Bosnia and Herzegovina had faced a challenging task regarding higher education and scientific research work which had to be continually realized in accordance to the standards of the European Higher Education Area (EHEA) and the European Research Area (ERA). By introducing the unique standards of quality assurance, it would be possible to compare higher education institutions in regard to the unique criteria with an aim to improve quality of education within the EHEA. Standards and directions for quality assurance in higher education are divided into three parts and include internal assurance of quality in the frame of higher education institution, external quality assurance of the higher education and quality assurance of the Agencies of external quality assurance. In

accordance to the principles of the Magna Charta Universitatum (1988), teaching work and scientific research at the universities need to be inseparable. Therefore, teaching process need to function in accordance with current needs in education. It would also need to maintain the social requests and progress within the scientific achievements. "… a community that disciplines is one that exercises quality, control, judgment, evaluation, and paradigmatic definition (Shulman, 1993: 6). In relation to this, increasing of the quality standards in higher education and science also requests a continuation of work on modernization and harmonization of syllabus and working plans. This is a necessary process for the quality improvement of educational policy, teaching practice and strengthening of responsibility and transparency in education. The role of teaching profession is twofold, meaning that teachers are researchers of their own special, professional field of interest but also of the ways of teaching, of pedagogical approach. „Every teacher needs to critically operate with research results in higher education pedagogy no matter if it is not his/her special field of interest" (Bratanić et al., 1987: 34). In relation to the fact that teaching process is depended on interaction between teacher and student, every teacher has to be professionally and methodically trained for teaching. S/he needs to be provided with sufficient pedagogical-psychological and didactic-methodical subjects. To enrich this s/he needs to have necessary knowledge, skills, abilities, attitudes, in one word, to have competences. "…teaching is generic, technical, and a matter of performance…" (Shulman, 1993: 6). Schmidt (1972) claims that whoever declares that a good scientist is a good pedagogue in a same time, the one who improves her/himself through the concrete work, practically shows that s/he did not go after new approaches and issues of the university teaching. Even though the researches do not expose this explicitly, university teachers often follow this attitude 40 years later. However, it is important to emphasize that "…the quality of an education system cannot exceed the quality of its teachers" (Barber, Murshed, 2007: 13).

There are many texts and discussions related to teachers' competences and their roles in the last decade. Therefore Hirvi (1996) emphasizes readiness and openness for alteration among all other teacher's new role. The sources of changes in higher education are constituted from (Wagenaar, 2008): a) responsibility of higher education towards social community: to accelerate higher capacity, readiness to accept new working conditions and be capable for lifelong learning; b) demand to increase global competitivity of the Eeuropean higher education by mending the levels and outcomes of study programs in the purpose of better transparency, simpler comparability and higher mobility of students, teacher and other staff; c) new approaches to learning and teaching that gives better educational results: awareness of student-centered teaching advances and motivation of student's activities instead teacher-centered teaching process and scientific content-centered teaching. "The most important school-related factor in student learning… is teaching" (Schwartz, 2009: online).

The teachers' confidence in students' abilities and their dedication to the pedagogical process are central factors within the teaching process. The successful results of the teachers' work showed the significance of mentorship, cooperation with colleagues and constant pedagogical discussions. Teachers' own reflective capability has also been promoted (Šušnjara 2018: 29). In accordance with constant promotion and modernization of teaching competences, the project has been made at the University of Sarajevo under the name: „Training of teachers and assistants at the University of Sarajevo for promotion of the Bologna process with an aim to improve quality of educational process".

The project goal was to enhance knowledge and skills while creating and applying syllabus through understanding of the basic terms (i.e. teaching plan and program, curriculum) in order to ensure their practical promotion. The activities within the project were the opportunity for the exchange of experiences through joint work, discussion and practical application of modified knowledge and skills. Knowledge and skills of the academic staff are necessary for their better efficacy and competitiveness. Didactic and methodic arrangement of the learning and teaching process need to be transparent. One of the sources for making transparency is syllabus as such. (Šušnjara 2018: 29)

Professional development overcomes the term 'training' and includes formal, informal and non formal modes of supporting teacher's personnel to develop new knowledge and skills, and to develop 'new' notion of pedagogy and their own sense of practical teaching. Nevertheless, the trainings are compensation for achieving necessary competences and important sequence in teacher's lifelong learning. (Šušnjara 2018: 29) Learning at working place is a constructive way to be occupied with new challenges. Pedagogy does not consider teaching as something that can be taken into account separately from an understanding of how students learn. (James, Pollard 2011: 280) An inclusive school culture in which all the students can feel that they are capable, valued and never excluded is of a great importance. All the same, pedagogy is "the act of teaching" framed by "ideas, values and evidence" (Alexander 2004: 19).

Training of teachers and assistants at the University of Sarajevo for promotion of the Bologna process with an aim to improve quality of educational process

The previous implemented projects that were related to the reform of teaching plan and programs distinguished a requirement for a new project focused to the Bologna process promotion with an aim to improve quality of educational process. The Project tended to accomplish specific training in order to empower teaching personnel for implementation of new approaches to the current teaching plans and programs and syllabus. The dynamic of project realization was conditioned by the complexity of activities that requested particular preparation, detailed planning and strong synergy between diverse services within faculty: teachers/assistants and administrative and technical staff. This was prepared in 12 months.

Project was focused on recognition of participants' needs (teachers and assistants). Through this project, teacher training development approach meant planning of syllabus, the harmonisation of training with learning outcomes. The clear situation what students would be able to do after they finished particular module was also of crucial importance. Further step was preparation and organization of teaching program, as well as a selection of teaching methods. The ways in which teachers use the strategies such as thorough planning, good organisation and careful implementation, are more important than the strategies themselves (Hattie, 2003). At the end, a process of evaluation appeared in order to verify have the participant comprehended the content, requirements and objectives of teaching, have any changes in their knowledge, skills and believes occured and were attempted learning outcomes became enriched. Through developing of knowledge and skills, the academic personnel would enhance its efficacy and competitiveness in the European space of higher education and research. The necessary modernization of educational policy and strengthen of responsibility and transparency in education would also be achieved by fulfilling this task as it was underlined in the Strategic directions of higher education development in the Federation of Bosnia and Herzegovina, 2012-2022. (Šušnjara 2018: 30)

The training was realized at the Faculty of philosophy, University of Sarajevo, with 16 teachers/assistants as active participants. Training period last from April to June, 2017. The overall project activities took place from September 2016 to June 2017. In relation to planned period of implementation, the period of project realization was three times shorter. This did not jeopardize the nature and quality of the process itself. The one of the project outcomes was a Handbook that would support teaching personnel in their future work. It collected all basic explanation and contents that were realized during the training. The Handbook was published in 2019 as an electronic version available at the web site http://www.ff-eizdavastvo.ba/Knjige.aspx.

The basic information about training realization is presented in the Table 1.

Table 1. Information about training realisation

| | |
|---|---|
| *PERIOD of TRAINING REALIZATION:* | April-June 2017 |
| *TEACHING HOURS*: | 18 direct contact teaching hours<br>5 hours of participants' independent work on making syllabus |
| *REALIZED TOPICS:* | 1. Presenting of project, experiences and challenges within teaching process<br>2. Professionalization of teaching vocation<br>3. Planning, organization and realization of teaching process: basic terms<br>4. Presumptions for writing down competences and learning outcomes: Bloom's taxonomy<br>5. Writing down the competences and learning outcomes<br>6. Learning and Teaching Strategies<br>7. Informatic and informational literacy/Distance Learning<br>8. Evaluation Strategies<br>9. Syllabus creation |

During the process of project realization, some changes occurred but its basic objectives were accomplished. The activities within the project were the opportunity for the exchange of experience through joint work and contribution of the colleagues from different departments of the Faculty of Philosophy, University of Sarajevo. The sense of understanding of basic terms related to teaching process, information about improvement in regard of making syllabus, encouraged teachers/assistants to step forward and enhance their personal teaching process. This project directed academic professions more strongly towards acquiring teaching competences and also contributed to the quality of education on the tertiary level in general. Despite the dual role of academic teaching staff (teaching and scientific-researching), the project attempted to strengthen individuals in the domain of teaching competences and to ensure teaching process quality which is the primary responsibility of every teacher/assistant and institution, as well. They had a good theoretical base and the capacity and readiness to link-up their theoretical knowledge with what they learned from the project. (Šušnjara 2018: 31)

Evaluation of the realized teaching sessions

The project evaluation was realized at the mycro-process level. Teaching sessions were evaluated by the training participants. The evaluation list was written by 13 from 16 teaching participants. Participants had a chance to evaluate realized teaching sessions in relation to: content/topic accuracy, quality of activities, personal engagement, working conditions, knowledge and style of lecturer. The scale went from 1 (bed) to 5 (excellent).
In relation to given aspects, the participants made evaluation as follows:

| The scale | 1(f) | 2(f) | 3(f) | 4(f) | 5(f) |
|---|---|---|---|---|---|
| Content/topic accuracy | 0 | 0 | 0 | 1 | **12** |
| Quality of activity | 0 | 0 | 0 | 1 | **12** |
| Personal engagement | 0 | 0 | 1 | 5 | **7** |
| Working conditions | 0 | 2 | 1 | 3 | **7** |
| Lecturer (knowledge and style) | 0 | 0 | 0 | 0 | **13** |

In accordance to the frequence of responses, we can conclude that training participants were the most satisfied with knowledge and style of lecturers, the accuracy of contents/topics and quality of activities. The less contentment was shown with their own engagement and working conditions as it is presented in distribution of assessment on the scale from 1 to 5. With numeral assessment, the participants had an opportunity to comment their evaluation. Some of them gave subsequent feedback:

*„Everything was for 5+"*

*„There are no more relevant topics for teacher from those that were offered during the training: quality of training, verified ways and methods for creating lessons, and – perhaps the most important: tools for objective measurement and assessment. Flexibility and possibility to modify contents to each group (pupils, students, participants)."*

*„Very well organized training, excellent coordination among colleagues. All lecturers were of good quality. Their expertise and skills were used maximally in the purpose of the training. Working atmosphere was relaxing. The teaching process was dynamic and motivated. This enhanced better interaction and good results."*

*„It was good, but mostly adequate for secondary school enhancing."*

*„I am very satisfied! Great interaction, respectful manners shown to participants. Knowledge and approaches to work without any objections."*

*„I am very glad that this project was created. All academic staff should be include in this activity. The project team showed how qualitative and well prepared teaching process should be looked like. Their teaching was professional and affectionate. Having in mind communicational problems that we have at the majority of our departments, it was good to see the team that function perfectly. This was a medicament for us who are traumatized at our working place. I learned a lot. Some parts of what I had learned I can integrate in my teaching immediately."*

*„I would like to praise the enthusiasm of the lecturers and their sincere wish to transfer information to the participants. Relaxed atmosphere was very motivational and the rhythm of theoretical and practical parts of teaching process was great. It kept us focused despite the fact that we worked in the late afternoons at the end of the working week. The teaching process was concentrated 98% to the contents that 'non pedagogues' are lacking."*

When the participants were asked to articulate what will be changed in their work after the training, the majority of them claimed that they would apply acquired knowledge into their future teaching. These changes are related to different learning and teaching strategies and creation of syllabus in accordance to competences and learning outcomes. Two participants claimed that nothing will change in their work. Some responses were as follows:

*„I will pay much more attention to syllabus creation for sure, and especially to learning outcomes. This training helped me to understand their importance."*

*„Thanks to this training I had opportunity to question my teaching work, to reflect again and again upon my current way of teaching, upon my relation towards teaching subjects and much more important my relation towards students. Entire process awakes in me a new sort of enthusiasm which will be mirrored in the quality of my teaching, I hope "*

*„There will be small steps and small changes. Such an issue requests a serious approach in making syllabus, serious analysis of all segments of teaching subjects and every teaching units. The analysis and creation of every teaching unit and planning of the students' activities, monitoring and measurement of their engagement, knowledge and promotion. Therefore, I decided to start with one teaching subject from the first year of the first cycle of studying in order to grew up together with new generations. Step by Step :-D"*

*„Nothing will changed because the faculty does not stimulate changes.“*

*„I think this experience that I have got on these workshops, but also educative teaching is of a great importance for my professional and objective approach to obligations towards teaching subjects.“*

*„I will definitively use these methods and techniques which I learned inhere. Cooperation among colleagues was also approved. I finally got better knowledge of my colleagues from other departments.“*

*„The most important information for me was that the teaching process need to be student centered. Therefore, I will work on it attempting to include students much more in the teaching process. I will also radically reduce obligatory reading material and intensify activities outside of the faculty (going to the theatre, foreign libraries, exhibitions, museums etc.).”*

*„Even though I constantly question my own way of work with an aim to get better results of students (usual question-how it is possible that students did not accept some basic knowledge when teacher made so many efforts in his/her teaching), these workshops helped me to become aware of some things that I intuitively felt and to verbalize them. The change of perspective was perhaps the most useful element of this training. Student-centered teaching, thinking about concrete, effective ways of teaching in order to train students to make initiative (recognition of relevant facts, logic connection, clear and precise lecturing, etc.)“*

*„I will more insist on active students' participation within educational process; create syllabus with clearly defined objects and learning outcomes; use some new teaching and learning strategies during the teaching process.“*

*„I will begin to prepare my teaching process differently. I will pay much more attention to the learning outcomes. I was familiar with the Bloom taxonomy, but now it will be much more presented in my future work. The strategies were most interesting to me. We were talking about different techniques which will be used in my future work from now.”*

The participants were offered to suggest topics for future similar programs. Some of them proposed following topics: a) „Burning out“ at work; b) Mobbing at working place; c) How to motivate yourself and others in non-motivating conditions; d) Our taboos; e) Guidance for using technical devices/internet; f) Monitoring and evaluation elements of students work (assessment, activity); g) Modern teaching approaches; h) Educational working components at the tertiary level; i) Communication and cooperation with extremely difficult colleagues; j) Self-responsibility and self-care; k) How to preserve a good balance between teaching and scientific work; l) Strengthening of a solid behaviour; m) Working with students with disabilities; n) Construction of level assessment scale; o) Assessment of students's work.

At the end of the Evaluation list, participants had an opportunity to write down their final comments. These comments illustrates their pleasure and gratification.

*„I believe that every teacher and assistant of the Faculty of Philosophy needs to be included in such training. It would be purposeful to have similar trainings regularly.“*

*„I would like to gratitude and thank to the lecturers who made these contents closer to us with their kindness, smile, interesting and funny examples and materials. We must admit that we previously have reserve towards such a training. I think that every person who participate in educational process need to get similar training. Firstly, for precious information, but also and more important for building or rebuilding of personal critical attitudes towards entire teaching process.“*

*„The training was inspirative, motivational and professionally implemented. It was a good experience and wonderful interaction. I hope that we shall meet soon at some seminar, training, workshop... I would like to congratulate our colleagues lecturers and participants and I wish more success, happiness, creativity and inspiration in the work and life to all of us.“*

*„Thanks for efforts and patience.“*

*„It was nice to be acquainted better with colleagues from other departments.“*

*„Great thanks for education, innovativity, creativity, kind words, clear faces. Thanks for your effort and revealed confidence. You are wonderful!“*

*„I am more than pleased! I could not believe that such a fantastic team work is possible at our faculty. Time was gone very fast. Probably because of so many interactive moments. Lecturers were comprehensible in their teaching and were approachable all the time during the training. Everything what was said was relevant for our profession and our work. We could easily understand information we got and relate them to*

*our own experience as teachers. I am so sorry that our scientific work and quantity of published papers plays more imperative role than our teaching process, but this is a general trend. Thanks to the whole team for its effort and care. I enjoyed very much within the group."*
*„It is a very good initiative to finally have similar forms of working plans and syllabus on the faculty level. It is necessary to define accurate terminology and terms."*

*„Such approach should be introduced to all employees, especially to young personnel. Very useful contents that offer new and different approach to teaching process but also to students. Each topic was equally important, interesting and given in a different way. I was delighted with participation in this program. I believe that all participants learned new things and were equally eager to meet again. Gratitude to lecturers."*

The evaluation done by the participants witnessed that learning at working place really influence enhancing of teaching competencies. They demonstrated readiness to work together and were open for new information. They have the courage to spend their free time to work on improving their professional skills. In this case, learning at working place served them for developing their teaching strategies in order to maintain their own effectiveness.

## Conclusion

In regard to Bosnia and Herzegovina and its promotion of the Bologna process, we can conclude that the requirement that the academic personnel have to be professionally, methodically and pedagogically trained is partly fulfilled. The idea that teachers have to modify syllabus and classroom work in a way that students could comprehend the content, requirements and objectives of teaching was important but not always welcome in teacher-centered world. However, among the fifteen key recommendations prepared in the 2104 Report to the European Commission on New Modes of Learning and Teaching the fourth recommendation states: All staff teaching in higher education institutions in 2020 should have received certified pedagogical training. Continuous professional education as teachers should become a requirement for teachers in the higher education sector. The harmonization of training with learning outcomes was legally prescribed but not completely promote practically. The researches made in 1992, 2007, and 2010 proved that academic profession was under the pressure of the new instructions of the management sector, internationalization process and the request for academic staff professionalization. It was also found that the expectations from the academic personnel were larger than privileges (Ledić, 2012). Education of young people for lifelong learning requests an engaged teacher who is motivated and qualified for permanent learning and self-evaluation of his/her professional and scientific acting (Tot, 2010), and also his/her teaching process. Bain (2004) claims that, without exception, remarkable teachers have proper knowledge about content they taught and all of them are active researchers. They have instinctive comprehension of people's learning; they speak about creation of world and support students in constructing of their own knowledge. They also claim that teaching has a little significance if students' way of thinking, behaving and feeling is not influenced. Bain also claims that extraordinary teachers hold their teaching seriously approaching to it in a same way as to their researches. They prepare teaching in accordance to learning outcomes. These steps are contribution towards creating the teaching program of academic personnel. It is important to emphasize that the relationship between teacher and students has always been at the heart of higher education but in nowadays, the nature of this teacher-student relationship is changing very fast (Neville, 2018).

Therefore, the higher education institutions are obligated to ensure permanent quality of teaching process. In accordance with the fact that the initial education is not sufficient for teaching profession, permanent professional development is the request and obligation at all levels of education including academic personnel as well. The training of the academic personnel is important process of the preparation for a specific role of this profession which has twofold nature: teaching process and science. The training programs are primarily related to modernization of teaching competences through learning at working place, learning about culture of teaching, how to teach better in a more pedagogical way, etc. (Šušnjara, 2019.

Modern countries in the EU are in a phase of establishing learning and teaching centers. They want to equip their teachers with new ways of teaching. Therefore, teachers will be trained to cope with the new students' needs and respond to them adequately. The president of Harvard University in 2007, Drew Faust, pointed out in her welcoming speech to the first year students – "We are all teachers, we are all learners." For the teachers, learning at working place is understandable, for the students, studying is their free choice. Nevertheless, they are united in the common identity (Neville, 2018).

## Literatura


Alexander, R. (2004) Still no pedagogy? Principle, pragmatism and compliance in primary education. Cambridge Journal of Education. 34(1), 7-33

Bain, K. (2004). What the best College Teachers do. Cambridge - London: Harvard University Press

Barber, M & Mourshed, M (2007) How the World's Best Education Systems Come Out on Top. London & New York: McKinsey.

Bratanić, M. i sur. (1987). Osnovni problemi visokoškolske pedagogije. Zagreb: Školska knjiga.

Hattie, J. (2003) Teachers make a difference: what is the research evidence? Paper presented to the Australian Council for Educational Research Annual Conference on Building Teacher Quality, Melbourne.

Hirvi, V. (1996). Change-Education-Teacher Training. U: Tella, S. (ed). Teacher Education in Finland. Helsinki: University of Helsinki, 11-19

James, M & Pollard, A. (2011) TLRP's ten principles for effective pedagogy: rationale, development, evidence, argument and impact. Research Papers in Education. 26(3), 275–328

Ledić, J. (2012). Odgovara li akademska profesija društvenim izazovima? U: Ledić, J. (ur). Promjene u akademskoj profesiji: odgovor na izazove u društvu. Rijeka: Filozofski fakultet u Rijeci

Magna Charta Universitatum (1988). Dostupno na: www.hea.gov.ba

Neville, G. (2018) Towards better university teaching. Keynote lecture at International Conference, Prague, November 22-23, 2018

Peko, A., Mlinarević, V., Buljubašić-Kuzmanović, V. (2008). Potreba unapređenja sveučilišne nastave. Odgojne znanosti, vol. 10, br. 1, 195-208

Shulman, L.S. (1993) Teaching as Community Property: Putting an End to Pedagogical Solitude. Alt-Press Watch (APW)

Schmidt, V. (1972). Visokoškolska didaktika. Zagreb: Pedagoško-književni zbor

Strateški pravci razvoja visokog obrazovanja u Federaciji BiH od 2012. do 2022. godine (2012). Mostar: Federalno ministarstvo obrazovanja i nauke

Schwartz, R. (2009) Attracting and retaining teachers. OECD Observer [online]. Available at www.oecdobserver.org/news/fullstory.php/aid/2235/ [accessed 15 May 2019

Šušnjara, S. (2019) Unaprjeđivanje kvalitete obrazovnog procesa u visokom školstvu. Zbornik radova 8.međunarodne konferencije o obrazovanju odraslih. Zagreb: Agencija za strukovno obrazovanje i obrazovanje odraslih, Hrvatsko andragoško društvo.

Tot, D. (2010). Učeničke kompetencije i suvremena nastava. Odgojne znanosti, vol. 2, no. 1, 65-78

# Intellectual Development And Profession Of Pupils

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## Abstract

This research is dedicated to measuring the developmental levels in different intellectual and creative areas to support the choice of students and the study of the characteristics of the creative learning environment that supports this development. One of the goals of the research was to investigate the impact of different learning environments on the development of children's creative potential in the group of children with a relatively identical average figure of their creative potential. For this purpose, experiments, surveys, interviews and observations were conducted to evaluate the creative potential.

The purpose of the experiment was to determine the level of development of intellectual and creative potential of students and to clarify their quality and quantity in the experimental and control groups that are identified during the experiment. The impact of the learning environment on the development of intellectual and creative potential of students has been studied.

*Keywords: intellect, creativity, development, environment, test, experiment, potential*

**Introduction**

The Education Law of the Republic of Azerbaijan stipulates that education should be maintained at the level of full secondary education. From 2017 to 2018, all schools are subject to staging. However, the principles of solving this issue have not been resolved.

In the modern world, there are more than 40 000 professions, and 70% of university graduates do not work in their specialty. This means that there is a need for serious studies of vocational guidance for students.

According to the research, the mistakes that are observed in choosing a profession can be grouped as follows:

• To make a choice only in favor of high-speed work.

• To choose a profession to gain prestige in society.

• To choose a profession to influence the environment

• Identification of objects of a profession with other profession.

• To build relationships with a person based on their profession.

• To make professional choices based on solidarity with friends.

• Ability to determine personal qualities (personal characteristics, attitudes, skills).

• To make a professional choice without a proper assessment of the existing conditions and requirements.

• Wrong judgments about certain professions that are important for society and so on.

Three basic requirements should be taken into account when a profession are chosen:

• First, the profession should be interesting.

• Secondly, it is necessary to find a job suitable for the specialty.

• Thirdly, the profession must meet the capabilities of that person

All of these arguments show that the relevance of their potential capabilities is crucial to supporting students in their profession.

It should be noted that World Bank surveys show that economic development of countries is positively correlated with the intellectual development of their students .

**Research Aim**

The goal of the research is to explore the impact of different learning environments on the development of intellectual and creative potential of children in the groups of approximately the same average of intellectual and creative potential.

The purpose of the experiment was to determine the level of development of students' creativity in experimental and control groups, to clarify their quality and quantity. To this end, the results of the experimental and post-experimental studies have been interpreted in terms of interest, high sensitivity to problems, predictability, word stock, validity, inventiveness, logical judgment, stubbornness, perfectionism.

**Research Methods**

In this study, as an experimental base, students were involved in a course on training gifted and talented children entering higher education institutions abroad. Two groups were formed from children with high creative abilities: I. “Experimental creative group”, II. The “control creative group” was represented as a control group. The other two groups are formed from the number of intellectual children: III “Intellectuals” - as a control group, IV “Intellectuals” - as an experimental group. The study in groups was carried out according to the scheme “Experimental square” (Fig. 1).

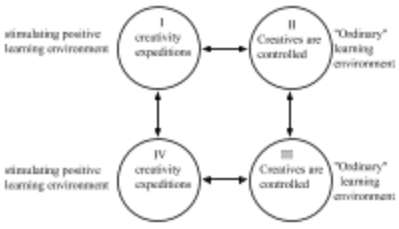



Fig 1. Experimental square

II and III groups differing in quality (II - “creative”, III - “intellectual”), while offering the same learning conditions, (“ordinary”) and based on their results, an analysis was conducted. III and IV groups of the same quality (both intellectual groups) offered different learning conditions (III - “ordinary”, IV - “stimulating positive”) and based on their results, an analysis was carried out. Since the IV and I groups were of the same quality (İ - “creative”, IV - intellectual), in this connection the same condition of learning was proposed (“stimulating positive”), their conclusions were also compared. In conclusion, comparisons were made on the basis of the results of experiments, and the results obtained were reflected in the table and graphs.

In short, we will only comment on the comparative analysis of the data obtained during the experiment in groups I and II. At the beginning of the study, according to the results of the experiment, the potential of creativity in groups I and II, learning motivation, cognitive activity, which were approximately at the same level, were compared and analyzed on the basis of a testing experiment with an excellent learning environment: I group “stimulating positive”, II group "normal".

One of the objectives of the study was to study the influence of various learning environments on the development of the creative potential of children in the group of talented children, whose average creative potential was approximately the same. For this purpose, an experimental group (experimental group - EG) and a control group (control group - CG) were identified, including tests, surveys, interviews and observations on the evaluation of creative potential.

The purpose of the experiment was to determine the level of development of students in the experimental and control groups, clarifying their quality and quantity. To this end, the children involved in the experiment, on the basis of “General Assessment of Children methodology by Savenkov, evaluated the quality requirements of the products activity, such as interest, high susceptibility to problems, stubbornness, perfectionism (table 1. and pictures 2-5 ).

Research Results. In both groups, the level of interest since the beginning of the experiment was higher than that of other indicators, and indicators on ingenuity and forecasting were relatively low. Therefore, children with a high level of motivation still lack the skills and abilities to work . This also confirms the hypothetical judgments in theoretical studies and shows that the content of training is not fully meet the educational interests of children.

In the learning process, in the experimental group, as far as possible, freedom, initiative (EG, control group - CG) were encouraged, children were encouraged to be creative.

After a while, the children themselves began to find solutions. The mathematical logic of the student had more than eight different solutions. The use of such questions in the identification and development of creativity has given good results. As a result of encouraging children to be creative, to

some questions children could find 3-4 solutions. This factor is the main feature of divergent thinking - creativity (C.Guilford, P.Torrance, A.Alizade, A.Bayramov, MehrabovA.O. etc.).

| № | Quality assessed | The average evaluation of the experimental group | | The average evaluation of the controlgroup | |
|---|---|---|---|---|---|
| | | Before experiment | After experiment | Before experiment | After experiment |
| 1 | The level of interest | 4 | 5 | 4 | 4 |
| 2 | High susceptibility to the problem | 3 | 5 | 3 | 4 |
| 3 | Ability to predict | 2 | 4 | 3 | 4 |
| 4 | Word stock | 3 | 3 | 2 | 3 |
| 5 | Evaluation ability | 3 | 5 | 3 | 3 |
| 6 | Ingenuity | 2 | 4 | 2 | 3 |
| 7 | Logical judgment | 3 | 5 | 3 | 4 |
| 8 | Stubbornness | 3 | 5 | 3 | 3 |
| 9 | Perfectionism | 3 | 5 | 2 | 3 |
| | General points | 26 | 41 | 25 | 31 |
| | Overall assessment of talent potential | 2,89 | 4,56 | 2,78 | 3,45 |

Table 1. Results on the method of assessing the general talent (Savenkov).

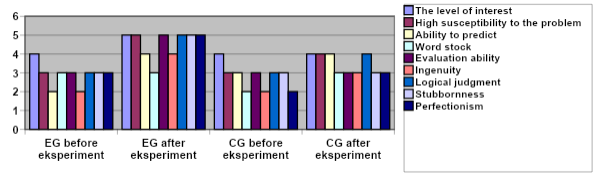



Figure 2. Diagram showing the average results of the group before the experiment and after as per the nine indicators (According to table 1)

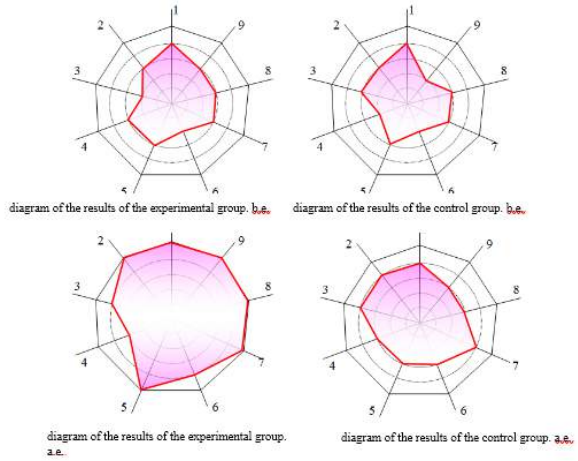



Figure 3. In the diagram, the average values determine the area of the closed figure. Ideally, the selected area coincides with nine corners.

The distance marked from the center by numbered lines corresponds to the indicators for the relevant factors.

| | |
|---|---|
| 1 | The level of interest |
| 2 | High susceptibility to the problem |
| 3 | Ability to predict |
| 4 | Word stock |
| 5 | Evaluation ability |
| 6 | Ingenuity |
| 7 | Logical judgment |
| 8 | Stubbornness |
| 9 | Perfectionism |

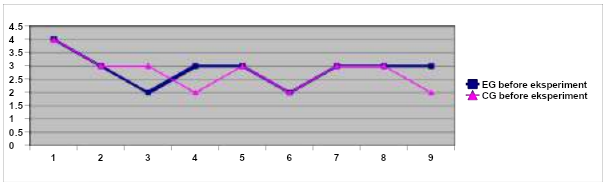



Figure 4. Graph of average values before the start of the experiment on 9 indicators

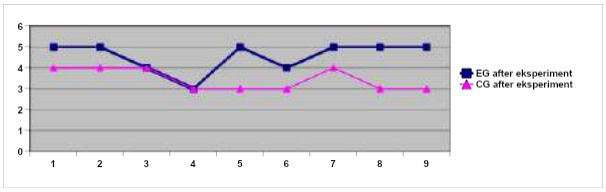



Figure 5. Graph of the average values after the experiment for 9 indicators. On the chart in the horizontal direction: 1.The level of interest. 2.High susceptibility to the problem. 3.The ability to predict. 4.The vocabulary. 5.Evaluation ability.

6.The ingenuity. 7.Logic judgments. 8.Stubbornness 9. Perfectionism

In “Metropol” logical examples, usually 5 answer options are offered. Sometimes I suggested that students change distractors and reflect on an even more original solution of the variant. In such cases, an interest was observed in the experimental group. In the case when the options were not offered, the attention of the children was transferred to other possible situations.

After a while, children enthusiastically took on this work and with a change in distractors, a number of questions revealed very interesting cases. Listeners of the experimental and control group were given the task to find interesting examples. In a group in which no solution was given within a minute, no prize was presented. Here, too, the goal was to encourage children to think quickly. Because during the tests and examinations, for solution of each problem 1 minute was required. During training, experimental group was allowed to ask questions, given explanations and consulted one another. As a result, children developed communication skills, the ability to explain and give brief and laconic explanations. In the control group, students mainly communicated with the teacher and directed all questions to the teacher.

After the test, the experimental group discussed the reasons for the failures, the guys explained the difficulties that arose when solving the examples, also discussed the reasons for choosing the solution strategies that did not lead to the results or led to an error, and also discussed their critical attitude to this. In the control group, the right solutions are offered and explained unclear moments to students. In the experimental group, children in the classroom are often divided into groups, after which they are given tests that are consist of 8-10 tasks for their quick solution. At such moments, they need to quickly make the distribution of responsibilities among those who take on the solution of tasks and those who quickly complete the work will begin to help others' work. When there is a strong competitive spirit, the process is very intense. Groups that could not complete the task, report the completion of the process.

To save time, ask for help in other groups to solve certain problems.

In such situations, there occur some emotional disputes, accompanied by the use of strong words and the nerves are on edge.

Usually, children with a calm and restrained character in such situations show unusual qualities, and sometimes even aggression. Those who demonstrated higher creative potential than others remained calm in this race of tension and were surprised by the cruel reaction of others with a smile. Cases of "fraud" have not been observed. On the contrary, in many cases they make sincere confessions and lead to the resolution of the dispute in favor of the enemy. In these cases, the position of victory "in spite of everything" was more common in girls (75%).

When the tasks were given individually, children had a high degree of attention and concentration, and for some time were “isolated” from the environment. Disputes and "fraud" in the race was not observed in any of the children. The most distinctive features of harmonious progressive talents were found in children, which differ in solving issues that require high creative approach. High intellectual level, constant personality traits, high motivation, personal interest, rational criticism and knowledge-based relationships that manifest themselves in different circumstances were inherent in each of these children. Operations were fast and almost error free. They quickly evaluate solutions offered by others, and if mistakes are made, they immediately find it and sometimes explain what caused this error.

At the beginning and at the end of the experiment, parallel versions of the test results of V.Serb-Ryachoff were applied in the experimental and control groups. The obtained results were refined using the method of expert evaluation. Table 2 shows the results that do not correlate with the use of ambiguities. The number of those who scored 1 point in the EQ was 2 people, 5 points - 1.5 points, 2 points - 6 people and so on. Individual results of children of both groups are grouped by the upper, middle and low levels of creativity. The experiment showed that the number of top, middle and low levels of creativity among the groups was about the same, and, therefore, the average value of the creative potential in both groups was about the same. In each group, the ratio of the upper, middle, and lower levels was compared with the “curve” tended to the left, as determined by theoretical studies. One of the main reasons for the left trend is the complete satisfaction of the mental needs of students with high potential in the current educational environment, their low level and one-sided realization of their creative potential. At the beginning and at the end of the experiment for experimental and control groups, a graphic description of these values is shown in Figures 6 and 7.

K.Aliyeva studied the change of creativity in student groups as a result of favorable learning conditions in her studies of psychological processes in the work of the individual. The characteristics and dynamics of this change are shown in Figure 8 [1]. Here, at the beginning and at the end of the study, the distribution of the creative potential of the group in the experimental group at low, medium and high levels was reflected. In the picture we draw red curves. These curves, their changing properties and dynamics correspond to the attributes of the corresponding curves obtained as a result of

our research. In our study, this process was relatively studied in the experimental and control groups, and the distribution of levels on the graph was more detailed.

The main objective of the study was to investigate the fact that the creative potential of talented children in the educational environment (forms of education, methods and strategies) was recognized as effective, as well as to determine the quantitative dynamics and qualitative characteristics of this development.

Groups those involved in research very often pass tests and during tests they try to find a way out for solving a task. After some time, the guys from the experimental group who were unable to find a solution to the problems refused to further solve them and continued to search for answers on their own. In the most difficult situations, the guys asked for a hint from the teacher. In order to save time, the students of the control group made ready-made decisions, and were not inclined to try to find solutions by themselves. During the formal experiment, the logical and mathematical capabilities of the groups were regularly monitored every two weeks and every week near the end of the experiment.

Table showing the number of points on the creative potential of children in the experimental and control groups before and after the experiment

| Points | 0 | 1 | 1,5 | 2 | 2,5 | 3 | 3,5 | 4 | 4,5 | 5 | Overal l point | Averag e point |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| The number of children of the experimental group before the experiment | 0 | 2 | 5 | 6 | 5 | 3 | 2 | 1 | 1 | 0 | 58,5 | 2,34 |
| The number of children of the experimental group after the experiment | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 8 | 7 | 2 | 90,5 | 3,62 |
| The number of children in the control group before the experiment | 0 | 3 | 5 | 6 | 4 | 3 | 2 | 1 | 1 | 0 | 57 | 2,28 |
| The number of children in the control group after the experiment | 0 | 0 | 1 | 3 | 7 | 7 | 4 | 2 | 1 | 0 | 72,5 | 2,9 |

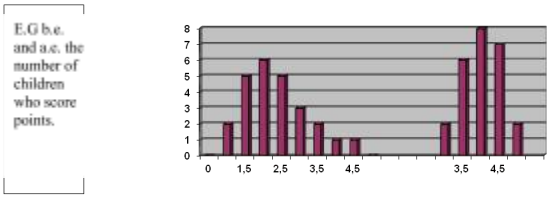



Figure 6. Table showing the number of points on the creative potential of children in the experimental and control groups before and after the experiment (based on table 2).

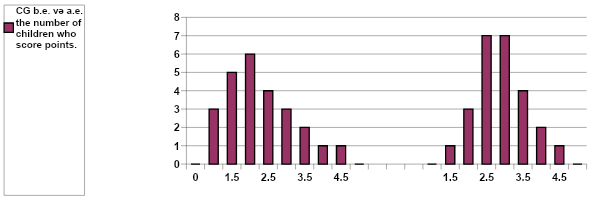
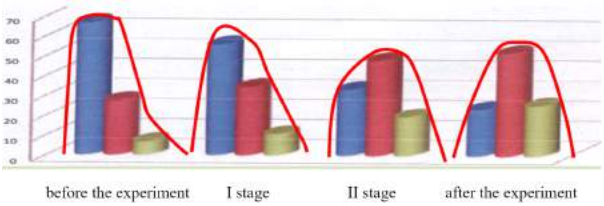



Figure 7. Table showing the number of points on the creative potential of children in the experimental and control groups before and after the experiment (based on table 2).




Blue - low, red - medium, green reflects a high level

Figure 8. A diagram showing the characteristics of changes in the creativity of students under favorable conditions of study in student groups [1, p.56].

**Conclusion**

In addition, psycho-diagnostic tests were also squeezed out to students for solving problems requiring creative abilities. Psychodiagnostic tests in verification experiments were used as an integral part. These tests include an assessment of the initial situation on a number of issues related to the transfer of experiments, monitoring the dynamics and characteristics of changes in quality and quantity occurring in the learning process, and in the experiment to evaluate the final results and increase the reliability of these results. It was noted that quantitative growth in the experimental group, which began to be controlled shortly after the formation of the experimental experiment and with increasing dynamics, led to quality variability at the end of the experiment. This has also been reflected in positive changes in timeliness, effectiveness and motivation for empowerment. The final result of the experimental experiment is based on logical, mathematical and psychodiagnostic tests and expert assessments, which increased the reliability of the results. The results of the official exams also clearly confirmed the results of the experiment.

It is very important that the difference between the graphs of linear curves based on the results of the determination and verification of experiments is obvious. On the last graph of the experimental group, "sliding to the left" was symmetrical and corresponded to the statistical proportions that were observed in most natural processes. This indicates that as a result of the educational environment

created, the development of the natural resources of children has naturally decreased. On the other hand, this indicates that learning conditions created solely for development purposes are in fact natural conditions necessary for the development of the creative potential of talents.

**References**


1. Aliyeva K.R. Psychological problems of forming the creativity of the individual. Post-doctoral dissertation. Baku: 2008.
2. Alizade AA Psychological problems of modern Azerbaijani school. Baku: Pedagogy, 2004, 432 p.
3. Baylarov E.B. Psychological diagnostics of the talent, "Aspoliqraf", 2008, 300 p.
4. Baylarov E.B. Determination and development of talent in children. Talent Worker Concept. Baku: "Education", 2008, 224 p.
5. Bogoyavlenskaya D.B. Psychology of creativity. M., 2002. 258 c.
6. Davis, G., & Rimm, S. (2004). Education of the gifted and talented (5th ed.). Boston: Allyn & Bacon.
7. Baylarov E.B. Development of student intellect. Baku: Adiloglu, 2006, 208 p.
8. Mehrabov A.O., Baylarov E.B. Testalogy and modern education. Baku: Adiloglu, 2003,208 p.
9. Piazza Z. Intelligence of Psychology. SPB: Peter, 2003, 192 pp.
10. Practical Intelligence / Total edited: R. Sternberg. SPB: Peter, 2002.
11. Sondergaard L. Monitoring and evaluation of SESDP implementation, World Bank (presentation). Baku: 2008.
12. http://www.edu.gov.az - Site of the Ministry of Education of the Republic of Azerbaijan.

# Modern Learning Process

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## Abstract

The article shows that traditional training aims to provide students with as much information as possible and mastering this knowledge. The teacher disseminates knowledge already made and distributed by the pupils. According to the teacher, they identify the skills needed to be shaped in the students. The article also notes that many teachers face the challenge of linking the content of their subject to the knowledge gained by the students from other subjects. At the same time, there are doubts about the extent to which the students understand and master the teaching material and the possibility of using them in extracurricular situations. Modern training is indispensable in addressing the challenges.

The article notes that the modernity of teaching can be understood as the mutual cooperation of the students, the dialogue, the common form of action. Modern teaching is that the student speaks, manages, models, writes, draws, and so does not only act as a listener, observer, but also actively participates in the process and can create the process himself.

*Keywords: modern learning, innovation, konfusi, student, method, process*

From the 80s of the 20th century, new approaches to education are being created in the world. Here are some directions. One of the main directions is to achieve the increasing mass of education, the increasing demands of the role of education in the development of society. It is no coincidence that the 21st century was generally called the century of education. As well as the 21st century is characterized by democratic citizenship. Therefore, education should serve for building a democratic civil society with both the content and the methods and technologies used in the pedagogical process. Here are some other directions: the content of education is upgraded.

While defining the content of education, three components are taking into consideration: the fundamentality, practicality and citizenship of the given knowledge. Parallel to these three components that were mentioned should be taken into account both in the choice of subjects and in the pedagogical process. All three aspects should prepare the growing person to live and function in a competitive, modern society. Traditional training, as we know, does not provide the students with much activity. Because traditional training aims to provide students with as much knowledge as possible and mastering this knowledge. The teacher disseminates already-understood and differentiated knowledge by the pupils, who, in the opinion of the teacher, identify the skills needed to be shaped in the pupils. The mission of the pupils is to exploit their knowledge and the way they operate in others more fully and accurately. The knowledge gained by the students in such a teaching process is available in the form of thematic blocks, which are not always relevant in terms of different subjects.

Many teachers face the challenge of linking the content of their subject to the knowledge of the students from other subjects. At that time, there are doubts about the extent to which students are able to understand and master the teaching material, and the possibility of using them in extracurricular situations. It is difficult to eliminate these doubts, since the feedback from the pupil to the teacher is built as a process of repeating the teaching material.

While organizing a learning process, the traditional school teacher is primarily concerned with the content of his or her

personal activity. Even in the lesson plan, as a rule, only the teacher's activities are clearly and in detail. Both the teacher and the teacher are the centerpiece of the activity. She guides, shows, or speaks to children, asks them to limit the movement of the students, and require silence in the classroom. In such a situation it is easy to define the student's position during the training. He is a passive listener, sometimes able to show his knowledge. Today, the modernity of our teaching in our schools is an urgent issue. Because the interactive learning strategy sees the student first in the role of an active participant of the educational process. In K. Wentsel's opinion, it is important that "children talk more often, show them, ask them, listen more teachers, keep children active and not become trainees."

The training process always requires modernity. At present, modern training is a process that demonstrates itself in school practice. Not just the demands coming from the development of the society, but the tendency of innovation in the learning process focus on this practice in the Azerbaijani schools. Today's most up-to-date teaching in the pedagogical world is based on the idea that Confucius had said 2570 years ago. He said: "I forget what I've heard, I remember what I did, and I realized I did. These three concepts carry on the need for active learning. Explaining these words of the Chinese philosopher, his content "I forget what I'm listening for, and if I see what I'm hearing, I remember a little. What I hear, see, discuss, apply, I understand. When I hear, see, and fulfill my skills, I acquire skills. If I transmit knowledge to others, then I have that own knowledge. The perception of the given material is possible only if the brain is directly affected. However, without the mechanical memory, information can not be remembered for a long time. Students do not have the ability to "take in" the material, and it is time to absorb the material independently, without the exposure of anyone. The teacher can not perform the intellectual work instead of the pupils, because they are able to unite all that they have heard and seen. Real mastering of the content does not occur without the ability to negotiate, ask questions, learn and even transmit it to others. Let's also note that my adoption always involves several "waves". Students need to have a few approaches to the same content to understand the learning material. These approaches should also be colorful and should not repeat the initial stage of perception.

The use of appropriate methods and technologies in modern training, the application of foreign experience to the national level can be considered the most appropriate approach. These methods including observation, interview, survey, summarization, experiment, and so on. have great importance. The methods used during the research have been used effectively.

Observations show that there are still some teachers, especially those who started new activities, unaware of the trends in teaching methods and technologies. Some teachers look at this issue as a new issue. In fact, this is not the case. The purpose of this article is to clarify some of the training issues that are actualized in the theory and practice of pedagogy, to discover the dynamics of approaches to teaching methods and technologies, to interpret the theoretical and practical issues of the modern learning process. First of all, we would be assisting the broader teacher community. Practical issues of the current training process are largely covered in the educational materials prepared by A. Agayev, A. Aliyeva, I.Aliyeva, A. Abbasov, F. Rustamov. Modern training contributes to the need for new methods and technologies. For this reason, forms of education, content, methods and tools, assessment, pedagogical process management, and so on. scientific and practical issues should be reviewed, national and world practice values should be reviewed and interactive results should be reached. The training process is modernized and improved by the acquisition of modern learning technologies.

Modern learning technology involves the complex and coherent implementation of forms, methods and styles used in teaching and learning activities, pedagogical process organization, evaluation and other training activities.

As we know, each student is able to have their own opinion and idea. Ideas change when ideas are exchanged, ideas are refreshed. Thus, psychological abundance varies. The weak students in the group are also actively involved in the debate, learn how to discuss and discuss each other during a collective debate. Through such a solution of each training task, they improve the search tactics, and builds their own success formula in the training itself. Studies conducted in the West in recent years prove that theoretically different approaches to the pupil's individual style of teaching are identifiable. Particularly, it was determined that most of the students today had to study the content rather than theory, and the number of such pupils was increasing year by year. The pupils first learned theoretical concepts and then preferred to gain experience and engage in practice, rather than applying them.

Some research shows that the number of pupils who are active in particular work and theoretical reflexive activity is one in five. This once again proves that active learning is a more desirable and self-sustaining action by modern students. So, teachers should focus attention on proper selection of modern teaching methods and their creative use. The main thing is to develop children's ability to think, to think, to express their opinions, to apply their knowledge, to communicate in them, to communicate culture, to solve their own problems. On the

other hand, each student has his own ideal, an interest, a desire to prepare for life. Both the content and the methods of teaching should be directed towards the achievement of this desire.

Studies show that modern teaching requires a teacher to carry out certain educational arrangements:

- The learning process is organized as a multilateral, collaborative and intensive communication process;
- Creating a favorable, positive psychological environment in the classroom;
- Special organization of the educational space.

Organization of the learning process as a multilateral, collaborative, intensive and communicative process involves a special multi-dimensional type of communication in the classroom. In this case communicative relationships arise not only between the teacher and the pupils but also among all pupils, and the teacher turns into an equal participant of the educational activity. In such a communication process, children have the opportunity to share their outcomes, talk about them, and listen to the opinions of their classmates, not just the teacher.

The introduction of multichannel communication enables the whole class of students to connect to the learning process.

The interaction between students on the basis of multilateral communication is possible on the one hand by their intercostal communication skills (listening to, listening, speaking, asking questions, etc.), and on the other hand, At present, we are talking about cooperative, co-operative training. In the training, the essence of the cooperative can be summarized as follows: "If you win, then I will abate." If the teacher has gained interactive methods and strictly adheres to the relevant algorithms of action, it is possible to achieve high results in multilateral communication.

Teacher can begin with introducing a program of future activities to the creation of a favorable psychological environment in the classroom. Teachers, such as a new subject, course, etc. inform students about future activities within the framework of the project. They may be limited to the subject name and the list of pupils 'work, or open up the content of future lessons, to identify the students' responsibilities and expected outcomes of their activities, and to discuss the methods and forms of the work and ways to evaluate its outcomes. When presenting an action program, the teacher should not only focus on one lesson, but should also consider the perspective of teaching the topic or section. Practice shows that the use of special methods and techniques at this point is not only more interesting, but also more apparent in the presentation of the content of the material to be studied. The open position of the teacher, the detailed understanding of the future joint action program, reduces the tension in the audience, helps the students to see the perspectives of their activities, and relieve feelings of fear and fear of the future. Teacher to perform such a position:

- At the beginning of the lesson, students should get acquainted with the objectives (in the end, students' expectations).
- When explaining this subject, it is important for students to explain why such methods and technologies are selected.
- Attract the attention of children to the characteristics of this or that technology and to the result they can get during the correct work.
- Identify the technology implementation algorithm and talk about sequence of activities.
- Must respond to students' questions.

Let's also note that the search and disclosure environment in the lesson should be judged. Teachers and pupils ask questions and analyze problems and make decisions. Students perform a certain role when applying their knowledge, skills and habits in the implementation of assignments: put forward assumptions, collect information and organize them, question the reliability of the results, and evaluate the information. Teachers show students how to perform tasks in the classroom and give them more advice to criticize or evaluate their activities before evaluating them.

The learning environment should be built in such a way as to make students' communication and communication easier and more natural. Everything in the classroom (equipment, furniture, etc.) should help the teacher in organizing space for interactive activities for children. In our view, the idea of setting up a subject curriculum is not only to facilitate the teacher's job, but also to create conditions for the organization of a learning space that allows teachers and students to take advantage of various opportunities for the selection of forms and methods of action. Didactic materials, exhibitors, equipment and equipment, maps, visual aids, and student outcomes showcased at this exhibition. Modern training also considers it necessary to follow the following stages:

The 1st stage of the training should be devoted to motivation, problem solving. As you know, it is important to start a research problem. The real problem always leads to numerous assumptions, probabilities, and first of all, a research question is needed to check them. Just the research question is the discovery of new knowledge. Motivation is an impetus to the mechanism of any activity.

The 2nd phase of the training should be researched. As a natural result of the hypothesis of the problem solving, there is a need to find facts that can confirm or deny the assumptions that have been raised and to help answer the

research question. This is to help the students undertake a variety of activities, which are purposefully aimed at solving the problem and incorporating new information and new questions. It creates favorable conditions for effective thinking and discovery of new information in the course of learning new facts and finding answers to these questions.

The research can be carried out in different ways: together with the whole class, in small groups, in pairs and in individual ways.

At the 3rd stage, information exchange should be carried out. At this stage, participants share the findings and new information they have acquired during the research. The need to respond to the question is to encourage all participants to actively listen to each other's presentations. Presentation introduces some kind of new knowledge, and now this knowledge is incomplete and chaotic. It is at this stage that there is a need for a new demand - to find out, to systematize and to come to a certain conclusion, to find the answer to the research question.

It is dedicated to discussing and organizing information at the 4th stage. This is the most difficult stage and requires the mobilization of all kinds of mental habits, different types of thinking (logical, critical, creative). Teacher helps to facilitate discussion and organization of facts gained through facilitating (using directive, assisting questions). Organization of information is directed to revealing and systematization of relations among all facts. As a result, the lines of response to the existing research question clearly begin to be selected.

At the 5th stage, generalization should be carried out and concluded. Thus, it is important for students to take the last step towards the discovery of new knowledge: to come to a concrete conclusion and to define the generalization. To do so, the student should not only summarize the information obtained, but also conceive the result of the research with the research question (whether that conclusion answers that question) and the proposed assumptions (whether or not there is the right thing between them). This is a very important point. The incomparable joy and satisfaction they feel for the students because they discover the knowledge of the lesson.

The 6th stage should be based on creative application. As it is well known, the main criterion for knowledge acquisition is its creative application. Creative practice reinforces knowledge, shows the child's practical value. So the teacher can offer students the opportunity to try to apply knowledge gained to solve certain issues or to answer some new questions. If creative implementation is not possible immediately, and if it is necessary to pass on the way to mastering the knowledge first, it is necessary to adhere to it. But ultimately, it would be best if the students were to work on the creative application of the discoveries they discovered, and that information would always be engraved on their minds. This stage may not be limited to just one academic lesson, so its realization is also possible in later classes.

The 7th stage is the final assessment or reflection. As mentioned above, one of the most important features of modern teaching is the ability to learn independent learning (learning skills) and gain independent developmental skills.

Evaluation is a mechanism that improves any process. To improve it, it is important to detect your own flaws and personalities in time, identify what is hindering you from succeeding, and what helps. Appraisal and reflection processes for the student's learning activities should serve this purpose.

The interaction between the students on the basis of such training is possible on the one hand by their intercostal communication skills, and on the other hand, by changing the basis of such interaction by the teacher. At present, we are talking about cooperative, co-operative training. In the training, the essence of the co-operation can be summed up as follows: "If you win, I'll end up hurting." If the teacher has gained interactive methods and strictly adheres to the appropriate algorithms of action, it is possible to achieve high results in multilateral communication.

The teacher can begin with introducing a program of future activities to the creation of a favorable psychological environment in the classroom. Teachers are informed, for example, on a new subject, course, etc. They may be limited to the title of the subject and the list of pupils, or by opening up the content of future classes, to identify the students' responsibilities and the expected outcomes of their activities, and to discuss the methods and forms of the work and ways to evaluate its outcomes.

The open position of the teacher, the comprehensive understanding of the future joint action program will help to reduce the tension in the classroom and to help the students to see the future of their activities and to feel free from fear and fear of the future. Teacher should familiarize students with each method and technology-related assignment. For this reason, students should explain why these methods and technologies are selected. They should draw children's attention to the characteristics of this or that technology and the outcome they can get when doing the right thing. Identify the technology implementation algorithm and talk about sequence of activities, respond to students' questions.

As American psychologist R. Chaldy writes in his "Impact Psychology", "The atmosphere of inam improves the attitude of the acquaintance." If the first impression from the beginning of the work is painted on positive emotions, it will be easier for a teacher to ensure the efficiency of the

classroom. This also allows us to divide the class into "we" and "them," and avoid the dissatisfaction of the students.

Training technology can have different shapes depending on the stage and stage of study, content, shape, and type of training. Nevertheless, in general, the structure of the training technology includes the organization of learning activities, the initial identification of learning outcomes - correction - progress, achieving and evaluating the results. Methods, means and styles, actual approaches are selected and applied according to the context of collaborative learning and co-operation with the learners. Debates, discussions, groups, couples are used to derive lessons optimization, visualization, intensifying subjects and interdisciplinary communication, logical, critical, creative thinking, student independence and personality development, and all of these are learning technologies is included in the process of use and is solved in this process.

Studies show that modern training provides first-class students with a degree of activity, independence. More than 30 teachers in one of the schools in Baku "What do you do in order to ensure the students' independence in the classroom? - There are various answers to the question. Let's look at some of them:

Teacher 1 - Let the students say their thoughts without hesitation.

Teacher 2 - I work to give the students tasks and work them independently.

Teacher 3 - I'm not a student of independence, because if the student gives independence in the lesson, there is noise and disruptions of the lesson.

Teacher 4 - I'm working on a lesson that the pupil expresses his / her attitude to the subject matter and can think creatively and analyze it.

The results of surveys with teachers have not been so encouraging. They forgot about the key issues that they would and would focus on in this process. So that,

- I create conditions for students to formulate, express, justify, argue and prove their views.

- I find it necessary to hear, listen to, and come to an alternative opinion.

- I help the Group to build constructive relationships, identify its place, eliminate conflicts, and engage in dialogue.

- Allow me to find a solution to the problem.

- Creative work and demonstration, etc. to formulate their ability to express their views.

The questionnaire carried out by the students also received an unambiguous answer: "We speak the lesson, we can express our ideas independently".

One of the factors that contributes to modern teaching is to be able to build the stages of the lesson. There are many experienced teachers and school principals who have improved their training technology in the post-Soviet space. Meanwhile, Sh. Amanashvili in Georgia, Z. Gayotov in Azerbaijan, V. Chatalov in Russia. Shatalov's training technology was called "Shatalov's method". The basis of its training technology was the formation of complex cognitive performance of students in the group (classroom) training. Based on all this, you can come to the following conclusion:

- throwing loads of children's attention by explaining the material in a very compact manner;

- Teach block-blocks, not related topics, in one lesson;

- To think independently of the students, to apply the creator, to formulate research skills and to test it in practice;

- Deliver the essence of the students and reduce their memory;

- Do not allow students to listen and write at the same time. Be sure to be loyal to the concept of "first listening, then writing";

- to allow each student to improve the score he has accumulated (this principle is called "open perspectives");

- To create a humanist attitude towards students;

- create a climate in the classroom so that each student can feel calm and confident;

- The teacher's knowledge should not be undefeated. For the successful course of the learning process, it is necessary to create a situation where "open doubts and contradictions between their own doubts and contradictions" and others. Given students' interests, views, attitudes and positions, these contradictions should be considered as a must-have for teachers and pupils to have their own dialogue;

- The stage of progress towards the knowledge that teachers traditionally mistakenly think about pupils' perceptions should be considered a problem at this stage of teaching. This is to learn in a student. creating a desire to solve the problem with the teacher.

By summarizing it, we can say that pedagogical technology teaches that the student presents, understands, memorises and applies his knowledge in an unconventional environment.

# The Basis Of Project And Research Activities Of Younger Students In The Training Process

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## Abstract

The preparation of the project is a creative process, theoretically it can be accomplished by consistently implementing a well-defined, algorithmic series of steps by using the project's ready-to-use schemes systematically.

The training and upbringing problems of the upbringing generation at the modern level of the development of the society characterized with the changes in all spheres of the field appear distinctly. The search of new methods and means of creating creative personality is the creator of the 21st century society, the capable of self-development, self-development and self-expression.

The modern school aims at educating and shaping universal knowledge, skills and habits that help students to gain the social protection in their future lives and achieve the high quality of life. The social agility and mobility are the results of their life planning, modeling and design skills.

*Keywords: project, pedagogical process, the project activity, the activity of researching, the research method of the training*

**Introduction**

In order to achieve this goal there are many innovative methods in modern pedagogy and one of them is to design.

The design and research activities of the students have been written in educational standards. The important component of the new model of school education is its practical skills, the application of competences and the ability to realize their own projects. This approach is called competency in the practice of the innovative activity of the educational institutions. It is about communicating, analyzing, comprehension and decision-making skills of students. During such kind of approach the role and duty of investigating the social-humanitarian and nature subjects change considerably and the importance of training courses which are the elements of mastering technology is increasing. The project methods will be actively used by involving schoolchildren in practical activities. So each student must be taught this activity. In modern pedagogy the students' project and research activities are becoming more relevant. It is not casual either. Because the intellectual labor culture of the students is formed better in the process of the independent work on project preparation.

Elementary school is the foundation of all subsequent education. The initial stage of school teaching provides the students' interests and perception motivations, prepares them for collaboration and co-operation with their teachers and classmates, forms the base of their moral behavior that identifies the individual's relationship with society. Time dictates new tasks - to develop the intellectual creative potential of the child's personality. One of the systematic approaches that reinforce the educational impact of the curriculum and positively impact the shaping of the modern schoolchildren is the project activity that can be viewed as a free structural unit of the instructive and educational process.

The project is a manifestation of the creative activity of human consciousness that "with the help of it the transition from non-existent to reality occurs in the culture". The author

attaches great importance to the project as a specific form of consciousness.

The project is very valuable, because during the project process the students learn to gain the independent knowledge, understanding and learning experiences.

In order to compare the creative stages with the phases of the project, let's look through the stages of the workshop proposed by N.N.Pakhomova:

- To address the project
- Organization of the activity;
- To realize the activity;
- Presentation of results.

So, one can name the phrase "to address the project" with other words, the level of formation of the project's theme and problem, it also corresponds with the initial stage of creativity. The organization stage of the educational activity, as N.N.Pakhomova predicts, is the solution of the problem of the project and the goals and objectives of the research, and it means this process is the preparation to the solution.

At the stage of the activity the students acquire the lack knowledge and prepare the presentation of the results. But checking the results are also needed for both for the students and for the teacher, according to the self-evaluation.

The creativity and project activity process showed that the stages and their directions were wholly alike. It gave a chance for us to confirm that the project activity is completely, but the education project is a partial creative process or creative activity.

It is necessary to prepare students for creative activities. It allows surmising the dynamics of development in the project activity of students.

**Research aim**

The project training is a forming means for interacting with the world, which significantly eliminates the contradictions of the modern social development, in particular the technological phase of education. One of the actual tasks of the modern stage of the development of the education system, which is expressed by numerous attempts to improve the fundamentals of project activities, is formation of the elements of project culture in students. The modern education system does not direct the teacher to give the knowledge in the ready form, but directs the training on the base of the organization of students' independent activities. The teacher brings it to the level of project and research work out of the education program. Of course, sometimes the teacher identifies these conceptions.

Sometimes in the literature the terms such as "research activity" and "design activity", "research method of teaching" and "method of projects" are used as synonyms, although there is a significant difference among them. To understand their true meaning, to distinguish similarities and differences among them is a principally important task from the educational point of view. In this regard, it is necessary to clarify the content of the concept of "project" and "research" in the context of the intersection of the educational space.

The word "project" means an individual or collaborative enterprise that is carefully planned to achieve a particular aim, in some cases – a plan, thought; designing – is the process of the formation of the project.

**Research methods**

The method of projects was created in the United States during the 20s of the last century. It was called the method problem and it was created by American philosopher and pedagogue John Dewey and used by him and his student William Heard Kilpatrick and it was connected with the ideas of the humanist direction in philosophy and education. The thesis of the concept of the project method is: "I know why everything I understand is necessary for me and where and how to apply this knowledge".

The training J.Dewey offered to form the education with the definite activity of students on the active basis, by adapting their knowledge to their personal interests. That is why, it was very important for children to show their personal interests in the knowledge that they would need in their lives in the future. From this point of view, a real-life problem that's important and familiar to the children is needed, and for its solution the application of the gained and new knowledge is necessary. The teacher may show a new source of information or direct the students' thought to the correct direction for independent search. As a result, they must solve the problem with independent and joint efforts by applying the necessary knowledge from the different branches and should have a real and perceived conclusion. The solution of the problem gets the outlines of the project activity. Time by time, the project method has undergone some changes. This method becoming from the free education idea is now an integral part of the education system.

The essence remains the same - to involve the students' interests in the certain issues that involve learning some of their knowledge and to demonstrate the practical application of knowledge gained through project activities.

In the 1930s this method was successfully developing in the United States of America, Great Britain, Belgium, Israel, Finland and Germany.

Today the project method is still used, but in an updated form. The main task of the teachers is to help the projects take the decent place in school teaching practice.

In the modern level of the social development, in the new social-cultural situation, in the light of the education demands to understand just this method and in the training of

the generation it allows us to talk about a school project as a new pedagogical technology that enables effective solution of the personality-based approach to the learning process.

"Project activity" is related to the scientific concepts and categories such as "project", "activity", "creativity" with different planning character. It is reflected in the crossroads of two major humanitarian subjects - pedagogy and psychology sciences.

The study of the project activity means the main legitimacy of the pedagogical process as well as its psychological content.

The conception "project" has the following important peculiarities:

- To belong to the future, near or far;
- There is no such future yet, but it is wished or unwished;
- This future is seen in the ideal plan;

On the base of these three signs the design is determined as the special ideal and pure type by N.G.Alexeyev as a process of understanding, but not anything that should be.

The technology of the student portfolio implementation has been working at school for several years. If someone – children, parents and even many of the teachers initially neglected the idea of a portfolio without understanding the essence, now the portfolio is a peculiar card of a student. The more the student is motivated for the creative and project activities, the more his portfolio that reflects not only his success, but also his personality, is valuable for him.

The project activity is an integrative type of activity that synthesizes games, comprehension, value-orientation, transformer, teaching, communicative and mainly creative activity. The project activity of schoolchildren is closely related to the problem of creativity, it is essentially creative. Accordingly the creative project activity of the students is an activity aimed at the creation of products or services of personal or public interest that are objective or subjective.

The students' project activity is defined as learning, creative or gaming activity that aims to achieve a general conclusion and is commonly agreed methodologies, means of action.

The necessary condition of the project activity is the realization of the pre-prepared concept of the final product of the project, the stage of designing (preparation of the concept, determination of the goals and objectives of the project, identification of possible and optimal resources of the activity, organization of activities for plan, program creation and project implementation) and its perceiving and reflection of the results of the activity.

To actualize the comprehension activity, the role of the teacher in supporting the research interests and in providing support to the interests of the research and the provision of the child with the necessary tools for its implementation, as well as the problems of the search management process have been investigated in the work of modern scientists.

**Research results**

Analysis of the research activity carried out by I.A.Zimniy and Y.A.Shashenkova allowed systematizing the various skills required for its implementation. They have identified the basic understanding of the structure of research activities and have formed their skills on their basis. The rules of the theory of the action based on the idea of a person who seeks the essence of creatures and who are willing to participate in cultural activities confirm the importance of project technology in the educational process. Studying the research behavior and the possibility of its diagnostics he analyzes the characteristics of this phenomenon and considers that in contrast to the intellect that demonstrates the ability to use "knowledge gained in the conditions of strict regulation and in the condition of unambiguous determination of conditions", the research behavior is not just indefinite conditions, but also an uncertain situation ability to show.

Applying for the comparison of the conceptions "research" and "to design", it is necessary to note that both of them relate to thinking activities: the design of its beginning; the research to its implementation. The design is related to the realization of the idea; the research is the search and understanding of the reality.

Besides it, according to the educational practice it is important to be closely related to the designing and informing research, that is why, it can be the effective instrument for the development of the creativity in the training and the student's intellect.

In the project process during the creation of the information as if the future is divided into three parts: determined, probability and accidental.

If the designing is enlarged in the frame of the first part – determined, then the research – the third part is enlarged and developed in the frame of the third part as accidental. But the second content part – probability – it can be used either in designing or in the "problematic research".

The principal difference in the design of the research is that the research does not form any predetermined object, even its model or prototype. The research is the search process, in essence, the search for an unknown person or thing, the search of the new knowledge.

If it is understood that it does not exist during the designing process, then it is important to see, understand and analyze what is happening in the research. The main purpose

of the research is to determine the truth, the existence of the object, the observation of the object without interfering with the internal world as much as possible. Contrary to the research, the project and design are always focused on the practice. In the process of the realizing the project the human doesn't look only for a new thing, it solves the real problem.

Though the preparation of the project is a creative process, theoretically it can be accomplished by consistently implementing a well-defined, algorithmic series of steps by using the project's ready-to-use schemes little by little (it means at the reproductive level). A.I.Savenkov considers that the design is not full of creativity, it is a plan-based creativity in a certain controlled framework. But the research is the education way of the true creators: "Unlike the design, the research is always creativity, ideally it is a disinterested search of the truth. If it is possible to solve any practical problem as a result of the research, then it is the side effect, nothing else".

**Conclusion**

The pragmatic approach to the possible outcome of the concept of "project" in solving this or any other practical or theoretically important problem is reflected in the works by Y.S.Polat. According to his thought the results of the projects implemented should be "felt", if it is a theoretical problem, then it must have the concrete solution, but if it is practicable, then it must be ready to use (at lesson, school and in real life) the concrete result. But this author does not reduce the creative component of the project activity, so that the knowledge gained in this process can be effectively applied to gain the new knowledge or to obtain the practical results based on their application. According to the scientist's thought, the development skills of the creative activity are based on the project method. If we talk about the project method as a pedagogical technology, then it means the research, search, a set of problematic methods and a creative method for its essence.

Y.S.Polat considers that the conceptions such as "as a result of the project activity" and "as a method of understanding activity of the project" mustn't be mixed up. The work on the project differs from the project method, it means the way in which the students' independent work is organized to achieve the specific result.

"The method of projecting is a way of understanding activity, it the instrument of comprehension". In the educational practice the method of projecting is to gradually and consistently complicate the practical task - the training system in which students acquire knowledge and skills in the planning and implementation of the projects. The essence of the research method of the training is identified as "the way to the knowledge through the search of the personal creativity'. The main components of it are the differentiation of problem, preparation and implementation of hypothesis, observations, experiments, practices, as well as making the judgments and decisions on their basis".

One can speak about the students experiencing a subjective thing like the researcher's work, "learning to simplify the environment and learning to observe it".

The training method should be regarded as one of the main ways of understanding that fully conforms to the child's nature and modern teaching tasks. Research is regarded as a particular type of intellectual creative activity that has emerged as a result of the mechanisms of the search activity and established on the basis of the research behavior.

So, though the differences in the approaches to the definition of the content of the conceptions "research" and "design", the high potential for research and project activities in students are quite clear. They are related to the stimulation of interest in children, the development of habits and thinking, as well as the knowledge of the information space, with the ability to create knowledge independently.

While estimating the private development potential of the research and designing, it is important to note that both project activity and research activities of the students are quite relevant for the innovative educational practice.

The students' project and research activities have been written in educational standards.

**References**

1. Ismikhanov M.A., Bakhtiyarova R.A. Ruling the school. Baku, 2012, 235 p.

2. Mehrabov A. The conceptual problems of the modern education. Baku: Muterjim. 2010, 512 p.

3. Pashayev A., Rustamov F., Pedagogics. Baku, 2007, 122 p.

4. N.V.Matyash. Psychology of schoolchildren's project activities. Bryansk, 2000, 385 p.

5. M.Pashayev. Art pedagogy and creative abilities. Moscow, Znaniya, 1981, 96 p.

# What Can We Learn From Universities of Ancient India?

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> *A university stands for humanism, for tolerance, for progress, for the adventure of ides and the search for truth. It stands for the onward march of the human race towards ever higher objectives. If the Universities discharge their duties adequate, then it is well with the nation and the people.*
>
> *Jawaharlal Nehru, 1st Prime Minister of India 13 Dec 1947*
> (University of Allahabad).

The world has been experiencing an unprecedented growth in university education. At the end of the 13th century there were hardly 20 universities. Today there are several thousands of universities, apart from several thousands of other institutions of higher education. There is an explosion in student numbers. The growth of universities is characterised by drastic transformation of their very nature. Universities have undergone tremendous transformation in several respects over centuries. Besides contrasting the ancient and modern universities, concentrating on ancient universities of India, the article draws a few important lessons relevant for development of universities in the twenty-first century.

Universities are the most ancient institutions; they are not borne yesterday… but they have undergone tremendous changes. In many cultures a variety of centres of higher learning were developed during ancient period (until 10th century AD) and later. They were founded based on great educational goals: universal, progressive, and human. Many ancient institutions perished, few continued. Some have an impact on later developments. There are valuable lessons we can learn from them on the conception, design and development universities.

'University,' drawn from its ancient designation of a 'Stadium Generale,' or 'School of Universal Learning' is conventionally seen as an institution where scholars, interested in a wide variety of areas of study, come from all over the world and participate in the process of creation and dissemination of universal knowledge. The scholars engage in serious scholarly discussions and debates, not only on their subject but also on wider issues of historical and contemporary importance – social, political, economic, philosophical, cultural, scientific and technological.

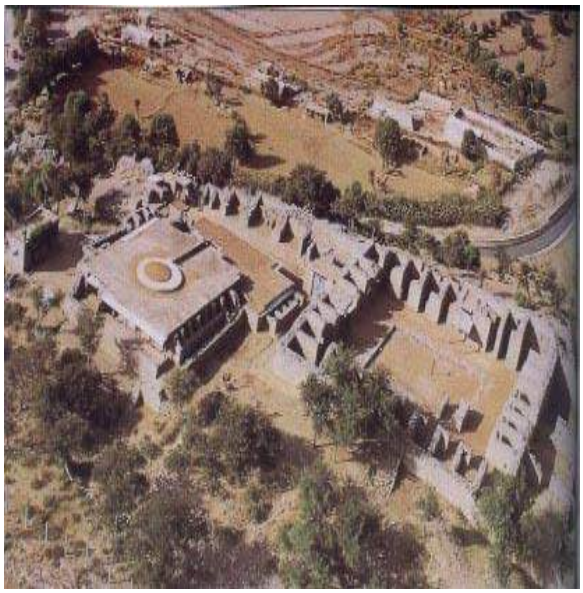
Tilak (2010) classified universities into five generations of universities, starting from the ancient universities of the ancient period such as Nalanda and Taxila, which need to be considered as the first generation universities, to the very present generation of universities of the 21st century that include even the profit-seeking commercially oriented universities as the fifth generation, covering in between the medieval universities, set up during the 12th to the 18th centuries (e.g., Bologna, Oxford, Paris, and Moscow) as the second generation, universities which include universities starting with Humboldt University founded in Berlin in 1810 to those that existed until the middle of the 20th century as the third one, and the universities of the later half of the 20th century, which include the universities that got transformed themselves, with a series of experimentation, into entrepreneurial universities in the late 20th century and in the new millennium as the fourth generation (e.g., Stanford, MIT, Cambridge, Tokyo and Delhi).

The world's first universities – Takshashila and Nalanda in India, the Pluto's Academy in Greece, and the Ancient University of Alexandria (the mausoleum) in Egypt, to mention a few, belong to the ancient period. Very often the universities of the ancient period are forgotten when writing about the history of universities for no valid reason and discussion starts with universities of the medieval period established in Europe (Wissema 2009). As Sanz and Bergan (2007) observed, "While people are generally aware that universities have a long history, there is far less consciousness of the value of university heritage: the accumulated experience of universities as well as their material culture which have been transmitted from one generation to the next, and the role this heritage plays today."

**Ancient Indian Centres for Higher Learning**

The history of some of the ancient universities is extremely rich. The ancient universities like Takhaashila, Nalanda, Vikramashila and other ancient universities in ancient India were founded on some fundamental and universal principles of truth and knowledge, aimed at producing finest human beings -- social thinkers, scientists, professionals, researchers, and above all, citizens of great character. University was truly perceived as a place where established notions of truth would get challenged in the pursuit of knowledge, and new ideas would germinate for the progress of humanity. It was conceived as a unique space, which covers the entire universe of knowledge. Those universities were truly universal – attracting scholars for other countries, and covering knowledge which is universal, inclusive of a variety of disciplines of study. As Keay (1918) observed, "Not only did the Brahman [ancient Indian] educators develop a , system of education which survived the crumbling of empires and the changes of society but they also, through all these thousands of years, kept aglow the torch of higher learning, and numbered amongst them many great thinkers who have left their mark not only upon the learning of India, but upon the intellectual life of the world."

Takshashila (Taxila) ($7^{th}$ century BC) that existed from 600 BC to 500 AD is the world's oldest University, with a student population of about 10,500 who came from all-over India/other countries. It offered courses specializing in 68 subjects: Theory and practice: atomic theory, astronomy, arithmetic, mathematics logic, philosophy, politics, law, history, Buddhism, vedas, puranas, accounts, commerce, agriculture, grammar, languages, magic, music, painting, dance, poetry, smithy, performing arts, astrology, futurology, Ayurveda, medicine, surgery, carpentry, cattle breeding, crafts, documentation, warfare, military arts,, archery, hunting, elephant lore,, the occult and mystical sciences, and many more, and also Greek ! Students came to Takshahila not only for higher studies, but also secondary education as a preparation for higher studies. Merit was the main consideration for admission of students and once admitted all students were treated equal irrespective of social/economic class. No distinction was made by caste or any other characteristic feature.



Some important features of Takshashila are indeed worth noting. Takshashila marks the conceptualization of a full-fledged university developed in India more than 2500 years ago! If provided free education: free boarding and lodging; there was no compulsory fees, as it believed that "*knowledge* [was] *not to be bartered for money.*" It received benevolent royal patronage in the form of grants from the

kings and support from community in terms of voluntary community contributions, voluntary donations.

Another equally famous ancient university in India is the Nalanda Mahavihara: (4th c BC) that existed till 15th century i.e. for 600 years. This was described by many an 'architectural masterpiece' and as the greatest achievement of ancient period in the field of education. Nalanda was the world's first residential university to both students and teachers, with extensive dormitories and accommodation. Its area was spread over a total area of 1.5 KM in length and 0.75 KM in width, and was enclosed by a lofty wall. It was having eight separate compounds, with 11 monasteries, ten temples, several lakes, parks. Besides meditation halls, there were 300 classrooms and large public lecture halls, and an astronomical centre. Nalanda was meant for higher studies; but it also provided primary and secondary education to the prospective scholars to be enrolled for higher studies. Nalanda was characterised by a high degree of student diversity, with scholars from countries like Korea, Japan, China, Tibet, Indonesia, Persia, Turkey Mongolia, Tokhara near Japan, and other parts of the globe. In all, it in its heydays there were more than 10,000 students and 2-3 thousand teachers, with an enviable faculty-student ratio: 1:7-8.

Nalanda was also known for its library; it had a large library complex (Dharmagnja), with three towers namely Ratnasagara, the Ratnasari (nine storied building) and the Ratnaranjaka –with 9 million manuscripts, meticulous copies of texts produced and preserved. The library had a collection of innumerable books and many rare ancient manuscripts (e.g., Prajnaparamita Sutra and Samajguhya) on various subjects like grammar, logic, literature, astrology and many more.

Admissions and appointments in Nalanda were based purely on merit. The entrance examination was regarded very tough. Hardly 20% of those who took examination were successful. No preferential treatment was given to any student.

Nalanda, like many other ancient institutions, also marked for autonomy. The administration was totally

autonomous. Most decisions were taken by the head of the institution the Bhikkhu, councils, and councils of teachers; and all functioned autonomously and efficiently. The management of the institutions was based on democratic principles.

Education in Nalanda was free, with free boarding and lodging to all. Students were required, however, to go for begging to get alms, as a respected practice of measure of simple living of scholars of the times. The institution was maintained essentially with endowments and donations. The rulers donated a few villages, revenues from which were used by the Nalanda for its administration and maintenance.

As K M Panikkar described, "The University of Nalanda was the educational center of international moral comparable in the universalism of its thought, the wide range of its studies, the international character of its community to the greatest universities of modern time like Oxford, Cambridge, Paris and Harvard." (quoted in Jayapalan 2005, p. 33)

Other prominent institutions of higher learning of the ancient period India include Sompapura Mahavira, Vikramshila, Pushpagiri, Valabhi, and Odantpuri. Somapura Mahavira was established in the late 8th century, now in Bangladesh; and it flourished till 12th century for about 400 years. It was spread over 27 acres of land. Out of this, the main building complex itself was in 21 acres. This was considered as a main learning centre for Hinduism, Buddhism and Jainism. The terracotta paintings on University walls depicts the influence of these three traditions. Vikramashila, was also established in late 8th Century and flourished till 12th century for about 400 years. In its heydays, there were over 100 teachers and 1000 students. It was in 6 college buildings, spread-out like lotus-petals, with 108 temples, the Mahabodhi temple in the centre. The campus had 6 gates. Diverse subjects were taught, and specialised coaching was imparted in Tantra, and Tibetan Buddhism. Moral values including asceticism, non-violence, and respect for begging for alms as a practice were the inculcated. It enjoyed liberal endowments made by the rulers. The institution was administered by a president and boards. Activities were organised by departments. Reports also suggest that Vikramshila used to confer degrees in a formal function, which can be called convocation.

Pushpagiri, was established by Emperor Ashoka of Kalinga kingdom in the 3rd Century in the present state of Odisha and it flourished till 11th century i.e., for about 800 years. It was spread across Kolkata and Rajasthan districts, across three adjoining hills namely Lalitgiri, Ratnagiri and Udayagiri. It was having three campuses. Valabhi was another ancient university, established in 6th century in the present state of Gujarat and it flourished for 600 years till 12thcentury. It was famous for the quality education it gave to its students. It had at one time 6000 students 100 monasteries. All its graduates used to hold high executive posts. Described as "a great centre for learning", it was visited by Chinese travelers -- Itsing and Huien Tsang during the 7th century. Valabhi focused on Hinayana Buddhism. Other subjects it taught included Buddhism, Brahiminical sciences, Vārtā (Business, Agriculture), political science, statesmanship, business, agriculture, administration, theology, law, economics, accountancy, Nīti (Political Science, Statesmanship). The institution was not exclusive or parochial in providing access to students. It was patronized by the rulers and it received bountiful grants from them, in addition to citizens' voluntary contributions

Among the ancient Indian universities, Odantapuri also known as *Uddandapura,* figures as one which was established in the 7th century and flourished till 11th century for about 400 years. Many Tibetan scholars visited and studied here. It was having about 12,000 students.

**What can we learn from these Ancient Universities?**

Over the last several centuries, the concept of university is undergoing dramatic change, the change being ever dynamic. Quite a few new generations of universities emerged and one notices a clear contrast between the ancient and the modern ones, including the ones set up during the medieval times. While searching for new and innovative modes of developing universities today in the twenty-first century, there is a lot that one can learn from a reading of the history of some of the ancient universities, in their nature, scope, coverage, planning, funding, spread, teacher-student relations, institution-community relations and many other aspects.

During the ancient period, universities were recognised as 'noble' institutions; they were considered as great sacred institutions. They were highly respected and valued institutions for their contributions, which were direct and indirect contributions. Externalities were understood as immense and the institutions were implicitly recognised as 'public goods' or even as 'global public goods'. They imparted moral, spiritual and universal values, universal knowledge, contributed to production of global citizenship. Pursuit of truth and knowledge and dissemination of knowledge were the main concerns of those organisations. They were not parochial and narrow-minded.

Role of the State and society at large was important in the development of centres of higher learning. All institutions received spontaneous and benevolent royal patronage and liberal grants either in terms of villages, revenue of which formed the basis for the financial base of these institutions or in cash and kind. It was considered a duty of the rulers to support education and allow the scholars to produce and disseminate knowledge in a way they felt right. Society also had a great respect for knowledge, accordingly the students and teachers. Teacher was widely regarded: '*Acharya Devobhav':* Teacher is God.

Voluntary donations from the community also formed the second most important source of funds. Community also liberally contributed in the form of alms to the students, when they approach, 'begging' for food, a respectable practice among the students in ancient times. There was no other source. No compulsory fees was charged from the students; but students at the completion of studies offered *guru dakshina* in gratitude to the teachers. Students were provided free education, including free boarding and lodging, besides free teaching. It was strongly felt that knowledge was not to be bartered; hence any consideration for business or trade in education was never entertained.

All ancient universities were large in size, with large campuses and huge infrastructure. They had not only plenty of classrooms, public lecture halls, but also student/faculty residences, libraries, gymnasiums, museums, grounds, parks, temples, lakes, etc. All universities were residential – all the teachers and students lived in the same campus, and all led austere lives. Life pattern of the teacher was expected to serve as a model for the pupils.

The ancient universities were truly 'universal' in scope and in reach. Knowledge in various disciplines and branches was the focus of these institutions. Principles of even contradictory strands of religion were taught. Discussions and debates were intense and powerful. The subjects covered all branches of knowledge. The areas included not only religions and spiritual and secular knowledge, but also sciences, mathematics, languages , humanities, culture, arts, liberal arts, engineering, medicine, technology, etc. They were comprehensive in their scope. Holistic knowledge development seemed to be the underlying principle. Scholars from all over the world were found in the ancient universities. Students and faculty from different socioeconomic, ethnic, regional and other backgrounds and from various near and far countries came to study or teach in these institutions. They necessarily living in the same residential areas provided a rich and vibrant learning environment.

Students were admitted essentially based on merit. There was no discrimination among students by any characteristic feature. The institutions were characterised by the dictum of universalism in their thought and approach -- *Vasudhaiva Kutumbakam* (the world is one family).

All universities in the ancient period enjoyed full autonomy. There was no intervention from the rulers or from others in the society. The heads of the institutions and senior scholars were responsible for all decisions in the universities. *There were also d*ecentralised and democratic internal governance structures developed in each university.

*As P N Prabhu noted, "Education in ancient India was free from any external control like that of the state and government or any party politics. It was the kings' duties to see that learned Pundits, pursued their studies and performed their duty of imparting knowledge without interference from any source what so ever.*" (quoted in Rao 2013, p. 11).

There are many other lessons one can learn from ancient universities that would be useful for the contemporary policy makes and planners in developing universities.

**Summary**

Ten Lessons that we should learn from these ancient universities can be listed as follows:

1. We should recognise that universities are most valuable institutions. Teacher status needs to be elevated to very prominent pace in the entire society.
2. Role of the State and Society is important.
3. Liberal public funding and free education are the best ways of developing strong universities.
4. Universities should necessarily be universal in character.
5. Universities should be comprehensive and should aim at holistic knowledge development.
6. Student and faculty diversity enriches the learning environment.
7. Integrated University systems help in producing more rounded personalities.
8. Large universities with large campuses and huge infrastructure lead to unfettered knowledge creation and dissemination.

9. Talented faculty is the most crucial actor of university systems.

10. Autonomy helps the universities to emerge strong, vibrant, creative and innovative.

**References**


AICTE. *Ancient Universities in India*. https://www.aicte-india.org/downloads/ancient.pdf

Apte, D.G. (2015) *Universities in Ancient India*. Baroda: M S University. [reprint]

Keay, M, Rev F E.: *Ancient Indian Education An Inquiry into Its Origin, Development, and Ideals*. Oxford University Press 1918

Government of India (2009) *Report of the Committee to advise on Renovation in and Rejuvenation of Higher Education*. New Delhi: Ministry of Human Resource Development (Chairperson: Yashpal)

Jayapalan, N. 2005. *History of Education in India*. New Delhi: Atlantic Publishers.

Rao, P.L. 2013 *My Dream Nation India: A Dream of Every Indian.* https://books.google.co.in/books?id=zDpJDwAAQBAJ&printsec=frontcover#v=onepage&q&f=false

Sanz, Nuria and Sjur Bergan, eds. 2002. The *Heritage of European Universities* (Higher Education Series No. 7). Strasbourg Cedex: Council of Europe Publishing. (2nd edition, 2007)

*Jawaharlal Nehru's Speeches* (1946-49), Publication Division, Delhi, 1958

Tilak, Jandhyala B G. 2010. Universities: An Endangered Species? *Journal of the World Universities Forum* 3 (2) (2010): 109-27

Wissema, J.G. 2009. *Towards the Third Generation University: Managing the University in Transition*. Cheltenham, UK: Edward Elgar.

# Preschool Education In The Paradigm Of Developing Training

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## Abstract

Perfect organization of the cognitive process in the period of Education Reform requires the implementation of developing training and covering of this process all stages of education. An increasing flow of information taking into account children's cognitive performance highlights the attention to the development of intellectual abilities.

The main essence of the concept of developing training is to create conditions for transformation of teacher's and child's development to main task. This complex pedagogical problem is solved consecutively: the first stage is the formation of a child's needs and capabilities, in the next few years these capabilities are strengthening by creating the conditions for its maximal realization.

*Keywords: developing education, preschool stage, informative activity, person, social and cultural principles*

**Introduction**

The first stage of education, including pre-school education provides children's intellectual, physical and mental development, the simple acquisition of skills, talent and ability, identification, health protection, aesthetic education. The development of intelligence comes to the fore. Not only knowledge and skills, but also values and competences are regarded as important attributes in the development of personality in education sphere of the world and accepted as quality indicators of current education.

The Austrian scientist K. Buller (5) considered, that "The true meaning of the word development, first of all means the natural opportunities and the second is the direction or purpose of their realization" (1924). According to him each individual in his development goes through stages of instinct, skills and intelligence. Internal rhythm, spiritual maturity is demonstrated in the development of state of mind. Through external impact the internal rhythm is accelerated or delayed. According to Buller's, the body has an internal aim and it determines the direction of development.

At the beginning of the twentieth century new look at this problem has been brought by Russian psychologist L. S. Vygotsky. L. S. Vygotsky (1982) differentiated two levels in child's mental development. The first level is the actual development zone. It reflects the actual status of the child's development. This level is characterized by the instructions, independently carried out by the child (12).

The second and the higher level he called the nearest development zone. In contrast to the first level, the second level characterizes the opportunities of fulfilling the tasks given with the help of adults.

According to the research of leading psychologists, each action in the establishment process of mental cases, knowledge and techniques can be called learning and development. Reflexive - personal and practical innovations with objects exist in developing teaching theory. Reflexive – personal plan shows the individual's attitude towards activity. Activity development carries out at the expense of personal innovation. The following factor is taken as a basis for substantiation and development of developing learning theory: the plan of action is based on objects. But the action also contains new thoughts.

The Azerbaijanian psychologist Bayramov A.S. (1967) has determined, that while establishing favorable conditions for learning activities of junior schoolchildren, the

independence of their mind, the tendency to criticism develops in a required level and they are able to get certain results, to find errors, inconsistencies, to tell certain considerations about the reasons causing them. Creation of conditions for improvement of children's mental development is one of the main factors in optimization of teaching process (4).

Professor Alizadeh A. A. (2007) notes that "the principle of developing training attaches special importance to intellectual development of the students and it is investigated together with the formation of personality"(2). That is why the training should be organized in such a way that it must not be satisfied with acquisition of knowledge and skills, but at the same time it must give an impetus to the formation of identity. In this case, the training is carried out its function of educating.

The famous educator Smirnov S.A. (2001) deals with the developing environment in preschool institutions preparing the child for school and requires the establishment of a child's development environment in "Pedagogy" textbook for high school students (9). Complex of development environment includes: material and technical conditions, sanitary and hygienic conditions, psychological and pedagogical conditions, sanitary conditions, ergonomic conditions, aesthetic conditions.

Prudaeva O.I. (1997) studied the effect of learning activity on thinking of young schoolchildren, personal and identity-oriented features, position roll structures which form the basis the teacher's activity in developing training conditions in her thesis named "Psychological and pedagogical features of developing training as a technology of developing education" and concluded that developing training creates favorable conditions for young schoolchildren's idea operations as – generalizations connected with implementation of analysis, reflection and planning (10).

According to the analysis of the research work on the problem, pedagogical and psychological literature and learning of experience we can conclude, that developing learning system is the whole sum of interacting components of this process. This system has a direct impact on the child's personality, making him the subject of training and their personal life, helps him to make a conscious choice through life and bears responsibility for it in front of society. Developing learning is a process aimed at personality developing laws. This is a direct result of the effect of the developmental process. This type of training draws attention not only with the development of cognitive functions (thinking, perception, memory, etc.), but also with the formation of a child as a subject in different types and forms of human activity, looking at a child as a person, creates favorable conditions for further development. Being the subject of the child in the learning process allows identifying the type of training. If a child is a taught object, developing training is already out of question.

The aim of developing training is to educate a child as a subject of private life and learning, to bring him up as a person who managed to make conscious choice and bear responsibility for his choice and that is able to choose the best means and methods for the solution the issues put before him.

Of course, representatives of different periods have commented the concept of developing training in terms of requirements of their historical period and put forward relevant proposals. The complexity of this issue and also the positive side manifests itself in organic and natural combination of pedagogy and psychology. If learning is a component of didactics, development is a psychological process.

**Research Aim**

In the process of acquisition of knowledge a child gets concrete results as new facts by applying new techniques. However a child gets a new stage of intellectual and personal development in learning process.

In developing training conditions at preschool educational institutions the main directions of improvement of education content and structure can be characterized as follows:

-strengthening the complex realization of education, training and formation;

-increasing the capacity of each informative lessons maintaining the compliance;

-giving the material to the sections, increasing the role of generalization, holding of generalized lessons;

-strengthening the relationship between the classes;

-solution of more developmental issues;

-the application of algorithmic instructions in teaching process;

-the supply of ICT;

-the formation of learning skills and habits.

## Research Methods

Methods and techniques of stimulating learning and children's cognitive activity, organization forms of lessons, effective implementation of teaching aids are of great importance in implementation of developing training. The role of conversations, discussions, independent work of children, role-playing games, research work ability intensifying children's needs in solution any problem and activating their cognitive process are irreplaceable.

A child is a subject of learning activity. The purpose, means and control are the basis of learning in developing training structure, but central technological contact is the independent cognitive activity. The motive of the training is expressed either in practical demand, in situational interest or subjectively when faced with the conditions that the child does not know in advance. Learning of knowledge and formation of teaching methods emerge as a result of child's action process in developing teaching structure.

As we have noted the child's developmental learning occurs in "nearest development zone". Developing training is a learning process aimed at the child's potential possibilities and its realization. Progress in development is the main condition of solid and deep learning of knowledge.

Work based on "nearest development zone" allows full and clear disclosure of children's potential opportunities. Changes in the nature of education cause the changes in the nature and structure of the training. In this regard, the essence of developmental training is not only the acquisition of knowledge, skills and habits, but also mastering of the methods of action. There are two directions in learning: the action in the process of learning and learning itself as a main content of learning activity. Specific aspect for learning is targeting of children mastering the activity methods.

The plan is the closest assistant of teacher in comprehensive development of children and achieving the goals. A teacher is weekly planning education and training work. While planning the classes a teacher takes into account their character.

1. Lessons of new knowledge

2. Lessons strengthening knowledge, skills and habits.

3. The complex, final lesson.

While preparing the plan it is necessary to take into account physical and mental development of children, the characteristics of their age.

## Research Results

Developing training is carried out in the form of involvement of the children in various activities aimed at creative imagination, thinking, memory and communication (didactic games, discussions, training methods).

By involving children in learning activities and using his potential opportunities, a teacher knows which operating methods they have mastered in previous learning process. He determines the psychological basis of this mastering process and learns the child understands level of his own personal performance. On the basis of acquired evidence a teacher shows his educational impact in accordance with children’s “nearest development zone”. Educational impact leaves behind hereditary qualities of personality, stimulates, directs and accelerates development.

According to the principles of pedagogical and psychological training, teaching methods should be trained in such a way that these methods may increase children's interests with its naturalness, may create domestic need to get the knowledge, direct them to further development and provide their mental development. A teacher is trying to determine the exact level of mental development of children and the learning process is organized so, that without loading children with information let this process go at the forefront of this development. A teacher is carefully watching the qualities that manifested in the handling and behavior of children, is trying to strengthen and increase their positive qualities and to overcome the disadvantages. The training psychological requirements are following:

1. Children’s positive motivation to training.

2. Sense of familiarity process directly with a material.

3. Development of thinking process during learning.

4.Recall of previous and subsequently acquired information, addition, changing and substitution process of new information.

The complete health and the development of a child as a human being is one of the main issues of the preschool period. Therefore, pre-school education, first of all, should serve the child's physical and psychological health. Ensuring the physical and psychological health of children is constantly under the supervision of a tutor and parent.

There are the following didactic requirements for classes in the process of developing training:

-ensuring an effective feedback with children in teaching process, creation of conditions for cooperation and aesthetic and emotional environment;

-acceptance of the children as a subject having equal rights in teaching process;

-optimal choice of teaching methods and techniques, and their compatibility to children's age and level of dynamic development, as well as the systematic application;

-consideration of each individual child's characteristics psychological, cognitive- training characteristics;

-strengthening of training developing aspect at the lesson, increasing of children's knowledge and skills level by differentiation and individualization;

-creating favorable conditions for children's independent activities, freely expression of their opinions and comment on other's idea;

-to teach the children training habits on the basis of "to teach to learn", finding independently a variety of data, ways and resources of knowledge;

-use of learning opportunities in children's national-ethnic and patriotic education.

In addition to the above-mentioned requirements for the efficient organization of teaching process in terms of new pedagogical thinking we can show the following principles:

-Developing teaching provides interesting and pithy establishment of child's childhood, adolescence and youth years.

-Developing teaching requires directing the main attention on such pedagogical and psychological aspects, as intellectual and creative development of children, the formation of logical and abstract thinking, the ability of intellectual infer analysis and generalization.

-Developing teaching requires the establishment of educational process on the basis of technology "teach to learn", maximum consideration of the child's cognitive capacity, transformation of education and training process into research and investigation. One of the important aspects of developing teaching is the formation of concepts on true knowledge. In the process of its realization the role of independent work is important.

It is necessary to take the following principles as a key, in order to teach any notion to children:

-The principle of compliance with nature. The essence of this principle is that the child should be developed, improved taking into account his natural capabilities.

-The principle of compliance with culture. This principle allows taking into account human nature, to determine general direction of the activity by applying social experience.

-The principle of Integration.

The intensification of training implies to meet the following requirements:

-The objectives of the training provide high activity of children by focusing on their potential opportunities.

-Enormously complex goals move away children from solution of the tasks.

-It is important to be understood of training objectives by children; otherwise there is no motive for activity.

-Training objectives take into account real possibilities of learning in "near development zone" of concrete children's collective.

-In order to achieve training objectives they must be flexible in connection with the changes of conditions and opportunities.

Increasing criteria of informative size of training content are the following:

-Children's age, ability, psychological and physiological compatibility.

-Consideration of given time, international experience, being of training materials base and carry out a serious choice of knowledge, skills and abilities in accordance with other training conditions criteria.

-Directing the teachers' attention on the work of teaching main concepts, skills and habits and accurate delivery of training material to children.

Thus, taking into consideration pedagogical and psychological principles in the organization of the developing teaching process at preschool education institutions, correct observance of the requirements for the organization of teaching process, ensuring of every child's active participation in learning process is the main indicator of qualitative organization of modern preschool education.

## Conclusion

While organizing developmental training it is necessary to create the appropriate conditions in order to use advanced methods and technologies and to achieve successes.

Developing training is a complete educational system taking into account interaction of subjects of educational process, objectives, content, teaching methods and learning outcomes.

The aesthetic environment in preschool educational institution creates a sense of joy in children and positive attitude to kindergarten. The children come to the kindergarten with great pleasure, are enriched with new knowledge and impressions, endeavor to creative activity that affects intellectual development.

Development environment is a driving force of personal development and types of activities belonging to him. It affects the formation of different abilities, child's subjective qualities, stimulates different types of activity, creates a favorable psychological climate in the group, and activates independence. In the process of developing training mental efficiency of children aged 5-6 is improved, retaining individual characteristics. Intellectual efficiency is an integral indicator of the functional status of the child and reflects his adaptation to various training activities, as well as to the training load. If we want to see happy future, we must create conditions to attract talented applicants to the preschool education field. Principal, teacher and music director working in preschool educational institutions must have a personal development plan.

## References


1.Alizadeh, A., 2008. New pedagogical technologies: Some psychological and pedagogical issues. Curriculum magazine, 1: 71-80.

2.Alizadeh, A., 2007. Psychology The textbook for students of higher pedagogical schools in the bachelor's degree. Scientific editors: prof.Seyidov S.I.and prof. Hamzayev M.A.Baku: p: 650.

3.Amonashvili, Sh. A., 2014. Fundamentals of humane pedagogy. Book 7. It is easy to be gardener, but it is difficult to be a lesson of seed. Moscow, Amrita- Rus, pp: 206-400.

4.Bayramov, A.S., 1967. Developing characteristics of students' mental qualities, Baku, Maarif, p: 350.

5.Buhler, K., 1924. Spiritual development of a child.Moscow, p:70-71.

6.Qaralov, Z.I., 2014. The actual problems of education system.Curriculum, 2: 19-20.

7.Mammadov, A.U., 1993. Psychological bases of training. Baku: Maarif, 296: 32.

8.Paranicheva, E.M., 2007. The functional state of the organism and the adaptive capacity of children in the developmental education 4, 5, 6/ Auto abstract. cand. Of biol.sciences. Moscow, p: 21.

9.Pedagogy, Ed., S.A. Smirnov, Moscow Academy, p: 157. p: 398.

10.Prudaeva, O.I., 1997. Psycho-pedagogical features of developing training as technologies of developing education. Diss. cand.of Psychological Sciences. Moscow: p: 162.

11.Vinogradova, E.A.,2001.Pre - school education: state and main development issues (the sociological analysis). Auto abstract. cand. ofsoc. sciences. Yekaterinburg., p: 25.

12.Vigotsky, L.S., 1982. Thinking and speech.Collected Works, Volume 2. Moscow: "Pedagogy", p: 251.

13.paata@amonashvili.com

14.http://blog.danilova.ru/vse-o-detyah/chto-takoe-razvivayushhie-igryi.html

15.http://blog.danilova.ru/vse-o-detyah/chto-takoe-razvivayushhie-igryi.htm

# One of the first creators of national education in Azerbaijan - Mohammed Aga Shahtahtli

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## Abstract

The article is devoted to the work of Mohammed Aga Shahtahtli, one of the leading intellectuals of the formation of national education in Azerbaijan. In the early years of the republic, as in Europe, great attention was paid to the development of education in Azerbaijan, the involvement of women in education and the transfer of students to study abroad. In this sense, the activities of Mohammed Aga Shahtahtli are studied in the development of national education in Azerbaijan and its struggle is discussed.

*Keywords: The World of Islam, Mohammed aha Shahtahtli, Advanced muslim alphabet, Eastern latin alphabet*

**Introduction**

At the beginning of the 20th century, one of the progressive intellectuals supporting the establishment of the Democratic Republic of Azerbaijan was Mohammed Aga Shahtahtli. M.Shahtahtli wrote and created as one of the fervent defenders of Azerbaijan's first European-style government agency and one of the speakers, as one of the few educated intellectuals in the country. The author was delighted to note that the Republic defended the ''liberty of forgiveness''as it did in the European countries. He also considered the creation of the university an important condition for the existence of ''liberty of forgiveness''. In this regard, an article by the great publicist called "The international recognition of our Republic" draws attention. The author recognizes the Republic of Armenia internationally and interprets the government's actions to be taken by the world states.

**Research Aim**

From the first day of the Republic's history, it has been pointed out that significant developments in education like in Europe, sending 100 students to study abroad, attracting women to education, and organizing a university are remarkable events. Drawing attention to the publication of a press release on the work done by the government during its activity, the author analyzes this official document and shows that the activity of the Republic should be evaluated positively. The author also notes with another joy that the Republic is a secular state: "Allies in the United States have official or unofficial representatives. It's been proven that we are stepping up with vitality." (6, p.221) summarizing what Mr. Shahtahtli said about the activity of the Republic: "So, from the European point of view, we are culturous and adventurous in our internal affairs. And in our international affairs, we are not complacent, but compassionate and law-abiding and foreigners. In essence, we can say that our independence will prove to be equally as good as it is." (6, p.221)

It should be noted that the government delegation was preparing to visit Versal Peace Conference to promote the republican state. The author published this article on the eve of the present - in January 1920, published in the "Azerbaijan" newspaper, expressing his dreams and thoughts on the national independence of the world in recognition of the world.

**Research Methods**

The great writer considered the development of the education of an independent republic as well as the creation of a mother tongue education institution in Europe as a very important task. Taleh Khalilov, an employee of the Nakhchivan State University, who studies Mohammed Agha Shahtahtli's heritage, notes that she was a great contributor to

the development of science and education in Nakhchivan at the end of the 19th and early 20th centuries: "She has devoted more than 50 years of her life to public education, school and national press. His pedagogical heritage in the mother tongue was one of the central places in the world. Giving special importance to the mother tongue's teaching role, Shahtahtli considered it necessary to conduct education in her mother tongue alone." (5) He wrote: "... Elementary school is a good result only when it is taught in mother tongue". (5) Shahtakhtli noted that the main language for acquaintance with the scientific knowledge provided at school is the main tool. The pupil begins to learn the content of the instruction directly and learn to master it. In order to develop his mother tongue, Mohammad Agha Shahtakhtli also publishes three main sections of the "Mother tongue" in Tiflis in 1906-1907. Not only was the improved Muslim alphabet of Shahthakhtli one of the most important events in the social pedagogical life of Azerbaijan. His book, "Improved Muslim Alphabet", published in Tomson in Tiflis in 1879 in Azerbaijani and Russian languages, emerged as the result of his first initiative in this area. M.Shahtaxtli was still struggling with the Latin alphabet as one of the most active supporters of the Latin alphabet. His suggestions about the Azerbaijani language at the beginning of the twentieth century have kept their relevance up to date. At the same time, he also made valuable research on the name of our language. In this regard, his "Improved Muslim Alphabet Project" (1879) can be considered as an embodiment of our suitable alphabet, which can serve the education of the Azerbaijani people. The presentation of the "Eastern Latin alphabet" to the government at that time is of great importance to the development of the Azerbaijani people. Therefore, in the empire of Azerbaijan. For example, an article titled "Transparency Muslims' efforts to reform their alphabets", published in the "Mir Islam" magazine in St. Petersburg, says: "She (Shahtakhti - TX) has reviewed several alphabetical projects on this occasion and does not oppose the improvement of the existing Arabic alphabet of Muslims. In our opinion, Mr. Shahtakhtli has 5 alphabetical projects. In one printed brochure, he gave 4 different symbols of each letter. It consists of its 4-voice alphabet, but Mr. Shakhtakhtinsky temporarily attaches to these alphabetical projects.

At the beginning of the twentieth century, Shahtahtli developed a number of alphabetic projects in the "Improved Muslim Alphabet" project, which he made 23 years ago. He has replaced the figures written down on this project. Also, the difference between writing and printing options has been reduced. Additionally, the methods of integration have been improved and all signs have been reduced. Therefore, Shahtahtli thought that an illiterate man could divert my alphabet for a few days, but the person who did not know the Arabic alphabet but who was fluent in any language could master it for a few hours.

Let's take a look at the following alphabetical project of Shahtakhtli. Let us note that this alphabet consists of 48 letters, 33 votes. 7 of these letters were double-headed, 36 letters were used as sounds. In general, these letters were proposed instead of the workings, to be thick and subtle, to clarify the 12th and 3th lettering words in the middle and at the end of the word. Therefore, he was dedicated to working as a progressive intellectual in the design of the university building project. His activities in this field, perspective plans, wishes and desires are clearly reflected in the press of that period. The scientist lived in Baku between 1919 and 1922. Academician Isa Habibbayli, who conducts research on the Shahthurli's biography, has found that on the basis of archives, he has taken steps to help shape the educational, cultural and press work of the new government during the Azerbaijan Democratic Republic. One of the main authors of the draft law on the opening of Darulfun in Baku was the Mahammad aga Shahtahtli. Mohammad Agha Shahtahtli insisted that the university played a major role in the development of education in Western countries, which had acquired European culture, and insisted on the necessity of starting the university in an emerging independent state: "What happens to Darulfun? ... We have no teachers in our secondary schools...; The physicians who treat our vaccine become susceptible. If we do not have Darülfünunumuz, who will spend the rest of his life on science ... Where do professors come from within our nation? Destruction of Darulfun is to be a cultural life. " (4) Mohammad Agha Shahtahtli stressed the necessity of opening a university, and most importantly, that the university is the most obvious indicator of free expression, and this is a clear evidence of our being free ideas. Opening a university is also important because it does not give the Europeans an excuse to say, "You are not a supporter of freedom of thought".

As mentioned above, the second issue of the Republic - the 1919 issue of public opinion in Azerbaijan, the subject of the education in this institution, became an important subject of discussion. Some intellectuals protested against the opening of the university by claiming that there were no national cadres and that they did not have the right conditions. There was a question about the organization of the university in Parliament. The founder of our republic, Ms Rasulzade, said in his speech on the necessity of the university for Azerbaijan: "There is no country of science; teaching of any science in Russian does not create conditions for Russian occupation. There were no victims in the Russian Darulfunun.

And most importantly, this Darulfun can gradually be nationalized. No nation has ever had a national minority in the first step of history. At first he used the others and then gained strength. Even if Darulfus is available in every language, we need to open and read. Because with this institution we are building a terrorist enterprise and we will announce our young people through it and gradually acquire the national professors we want. " (3)

The great enlightener also reflected on the controversy among intellectuals and showed that he always did not give us the job of obtaining higher education in foreign languages. However, it is not possible to teach in the native language of the university in the current environment, as there is no human potential. "That's why the social and political necessity wants us to open the dictatorship that will use Russian skills and teach Russian." (3)

Taking into account the conditions of the author, the university, which we have to open in Russian, insists on the necessity of ensuring national language education in the future with national cadres and ensuring its teaching in Turkish language.

It is clear that the struggle for national language is central to national idea ...

Studies on the status of mother tongue are being expanded, and the language of the mother tongue is expanded in educational institutions and military units. Mohammed Agha Shahtahtli, who watched and appreciated all these activities, noted that the opening of the university was an urgent and urgent task. The author of the book explains that the concept of the university is closely related to the language, and that the Turkish language is very useful for communication, that world scientists are the most suitable means of communication for the use of this language, and the regularity of its grammatical rules. According to the scientist, one of the main attributes of a sovereign state, a sovereign state, should create conditions for the development of the state language and ensure its publicity. Public offices, in his opinion, should conduct clerical work not in foreign languages, but in native language. With this statement, the scientist was likely to point out that Russian language at the time was still a means of communication and did not hesitate to warn: "A nation that does not create a village in its own language, whether in the administration, in politics or in the stomach, a nation and a nation that is truly an independent state of independence and a genuine independence. Neighbors, I'm not saying this, let's speak your language for a little bit, "said a minister or a lawyer who said," I'm not writing my own solicitor in my own language, but my neighbor, my tongue. " The intelligentsia is more shocking than that. " (4)

The author shows that the intellectuals and scientists are in a great position in this work. Every person should be able to express his / her personal views and feelings in the mother tongue. The teacher is also obliged to declare his point of view to his students in his mother tongue: "That person is a specialist in philosophy, and he is Turkish, he is living in Turkey, but he does not know his own science in his own language, and you do not believe that he is a scientist. I find a way to get a diploma, and I do not know what he's doing." (3)

As we have already mentioned above, by referring to this issue,on 27.06.1918., the government of the Republic declared the Azerbaijani language as a state language.

**Research Results**

Thus, the issue of the university, which also focused on the parliament of Azerbaijan, began on August 21,1919. The discussions of the Parliament was over on September 29th. Parliament accepted the university charter which consist of 72 substance. The law on Baku University was approved on September 1, 1919, and on 29 September, the charter was approved. On November 10, the first scientific council of the university was held. The Professor-teacher staff of the University was confirmed. In this staff of 44 teachers, we come across to the name of 9 Azerbaijani. As a substitute for this list, M.Shahtahtli is also mentioned. It should be noted that the old scientist was probably the first professor of modern Azerbaijan University and there was a great deal of work to be done on the nationalization of the university and the university administration from Russia. But Mohammed Aga Shahtahtli was not backed up from their national struggle. For examples, it will be clear from archive documents, Mohammed Aga Shahtahtli a professor of Arabic-persian language at the university, offers to invite local Azerbaijani teachers to teach Turkish in Eastern languages at a meeting of the Faculty council. But the government does not react to its proposal. At another meeting, the scientist criticized the position of Russian scholars, who unilaterally illuminated the history and culture of Muslims in the faculty insulted Islam. The leaders of the university’s chauvinist position didn’t like it for the free thinking of the great democratic enlightener, and attempted to blackmail every vehicle. Nevertheless, in an article in the Shahtahtli newspaper (1920.14March), the article was devoted to the Russian policy of rector V.R.Rarumovsky, the organization of professor staff members in Russian, the teaching of the staff without professional level,was criticized sharply.

**Conclusion**

Splendid educationist propagated Turkish literature and language in a floaming way during the lesson at the university. He wrote about it on his article:”After reading and commenting on Ahmad Rasim’s book literature lessons by

Hussein Javid and Abdulla Shaig". But in spite of all this activity, Mohammad Aga was sent to individual retirement as a first Azerbaijan professor at the beginning of 1922.

**References**


1. Agazade F. Ways of Resurrection and Enrichment of the Turkish Language. Baku: Nurlan, 2006, 46 p.
2. Gurbanov S. Open pages. Baku, Ganclik. 1974, 112 p.
3. A.Guliev Muhammad Agha Shahtahtli and the Azerbaijan Democratic Party. http://edebiyyatqazeti.az/news/
4. A.Guliev Only one of the first graduates of the Baku State University is Mohammed Agha Shahtahtli. http://www.anl.az/down/meqale/525/2018/may/593Ö74.htm
5. http://www, baki-xeber.com/layihe/22765.html
6. Shakhtahtli M. "Selected Works". Baku, 2007, 472 p. s. 221.

# The scientific-theoretical and methodological basis of the synergetic approach to education

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## Abstract

In the dynamic developing modern world the education should focus on the forming of a thoroughly developed personality, ready to deal with various problems in the globalizing situation. Previously the main objective of the school was to form a person with the knowledge of science, now the global goal of education is "a comprehensive development of a person" that covers the development of all the components of personality.

With the beginning of the process of national state building in Azerbaijan, the stereotypes that had been established earlier were understood that they had become out-of-date in the pedagogical theory, the new pedagogical concepts and theories were put forward. The new investigations formed on the basis of the new pedagogical thinking, national resources and universal values, that can affect the school development appeared.

*Keywords: the synergetic approach, personality, development, integration, innovation*

**Introduction**

The formation of a student as an identity was considered the primary task of the education system. Such thoroughly developed personality can get the independent information, decide un-standard decision, understand the many-branched problems of the mutual relations between the society and nature, and can struggle with the solution of the global problems of our time. In the "State Strategy for the Development of Education in the Republic of Azerbaijan" the development of institutional basics of the education system, as well as the development of innovative training methods and the application of technologies is a strategic goal of creating a competent, self-motivated and effective model of education. The existence of universal problems proves that the world needs a modernized education aimed at rebuilding human consciousness and activity in accordance with the laws of nature. The realities of today's world show that the existing education system needs a qualitatively new approach that defines its future development strategy.

Traditional education is not normally functioning in a frequently changing world, where prediction is impossible in accordance with the ideals and norms of classical pedagogy.

Changes in all areas of our society, the democratic processes, reconstruction of the economy and management, the development of all social life require a new approach to education.

The foundation of a thoroughly developed personality realizes at the elementary level in the learning process. The training process does not include the purposeful management of the development of the child's knowledge, skills and habits, but also the management of mental activities directed to the development of their thinking.

The different approaches in the learning process show themselves in accordance with time requirements.

From the system "classroom-lesson" founded by the author of the book "Didactics, the Czech pedagogue Jan Amos Komensky, the different approaches began to shape beginning from the 17$^{th}$ century and during the next centuries: programmed training, problematic training, algorithmzed training, differentiated training, etc.

At the end of the 20$^{th}$ century it is possible to show the success and highest achievement of science - nuclear power, space and rocket technology, cybernetics, laser, computers. At the same time, this world has become horrified for humanity, because it has been divided into feelings of politics and

ideology, lives under the threat of an ecological crisis. A human being in this world is any biological machine that is driven by the instinctive interests of nature. Individuality, selfishness, competition, survival are mostly mentioned. In this world the moral values, the feeling of love, the tendency to truth and the aesthetic need are not seen completely. In the practice of the ancient civilizations the harmony of human and nature has been lost. American psychologist S.Grof describes approximately the results of our civilization in his book so. [Grof S. Outside a brain, Publishing House, Transpersonal institute, 1993, page 497]

The global challenges happening in the world during the 21st century have covered all areas of our society. The state figures, politicians, scientists considered the solutions of the crisis in society as building a legal democratic government, rebuilding the economy and improving the quality of culture, school and education based on market economy. But life confirms that all of them were illusions and problems can not be solved through political, economic and legal means. As N.M. Talanchuk noted "The cause of all misfortune is in human, in his life philosophy". People's thoughts about life changed, they again understood that in the life it was impossible to live with the war philosophy which was dangerous for them. The following sections belong to the philosophy that is dangerous for humanity:

- internal and foreign wars;
- interpersonal relationships;
- economic political and economic relations;
- human struggle against nature;

Thus, the crisis that took place during 1970-1990 years is considered the crisis of human culture, education and life philosophy. The human's new life philosophy is not formed with the battle, it is formed by the philosophy of harmony with nature. This situation is higher than paradigm. The Latin word "paradigma" was used to refer to "a model or pattern", which is still one of the formal meanings of the word paradigm today. According to the American scientist T.Kun's thought "…The scientific achievements which are universally accepted and within a certain period of time form the introduction, modeling and solution of problems to the scientific community arrange the paradigm". The solution examples of the problems have a special role in the content of paradigms. Here the way out is to educate people who understand the new life philosophy.

The 21st century is accompanied by the new approaches such as integration to the world educational system, the innovation processes implemented in the education system, the purpose, content and methods of teaching, the organization of student-teacher combined activities. One of these approaches is the synergetic approach to the training.

**Research Aim**

The synergetics is a scientific direction about the self-organization systems and is a new interdisciplinary direction created in the 70s of the 20th century by the famous German physicist and mathematician Hermann Haken and well-known Belgian physicist and chemist Ilya Prigogine.

The term "synergetics" is derived from the word "sinergeticas" belonging to the ancient Greek language. The literal meaning of the word is "collective", "cooperative", "joint action". The roof "syn" of the word "synergetics" means "together" or "joint" in the Greek language, for example: synthesis, synchronous, synthetic, etc. Human's reconciliation to Allah is understood as "synergy". In Azerbaijan the word "synergy" is used in the meaning of the word "advertising" [2].

The historical roots of the synergetics are based on the ancient Chinese (dao) and the ancient Greek (Plato) philosophy and even the philosophy (dialectics) of the middle Ages.

Synergetic education acts as a stimulator of the intelligence, imagination and communicative skills. Synergetic education is an education that inspires personal searches and discoveries. Galileo Galilei confirmed that: "You can not teach humanity anything. You can only help to discover it in yourself".

From time to time, the synergetic movement and the different directions of this thinking began to appear, the movement of those movements, methods and forms led to the formation of a new scientific paradigm – synergetic. In this case, mentioning the term *"paradigm"* refers to the totality of scientific principles and scientific concepts.

It should be noted that in ancient times an opposite idea to synergetics - the idea of the motivating forces of the entire existence and the harmony of the development of the socio-society was put forward by Plato and Heraclitus. The idea of cooperation of people is also reflected in the primitive community structure later on in other social structures. As it is known, *co-operation* is one of the forms of labor organization and it means collaboration in different labor processes, where people are the same or interconnected. This idea is also seen in the teachings of Buddhism and Confucius.

As it is mentioned above, the founder of synergetics is Hermann Haken. But and I.Zabussky (mathematicians) had used this term in their works. Similarly, the term "self-organization" does not belong to Ilya Prigogine. Till that period ten, even hundreds of dialectic and systemologists had used that term.

G. Haken explained the new scientific direction – synergetics so: "I named my training as "synergetics", because, firstly, the joint activity of many elements of the system is investigated, second, the joint work of various trainings is necessary to find the common principles that control the self-organization" [4].

**Research methods**

Characterizing this science as a new "direction of research" H.Haken writes in one of his reports: "After describing the general description of this area, this research has been offered in a different way and under different names. This branch has different names: the theory of complexity, self-organization theory and so on. Except synergetics there are also other branches investigating the processes such as complex systems and self-organization: determined chaos theory, the theory of fractals, the theory of autopoiesis, the theory of dissipative structures, the theory of complexity, the theory of self-forming criticism, etc. One can accept all these directions as the partial intersecting circles. The acquaintance with those theories shows that as if scholars speak about the same thing in different languages".

From Haken's words it is clear that the word synergy can be understood in two ways: 1) in the narrow meaning of the word: training connecting with H.Haken's name and differing from other directions investigating self-organizing complicated systems (determined chaos theory, the theory of fractals, the theory of autopoiesis, the theory of dissipative structures); 2) in the large meaning of the word: as a direction including all trainings investigating synergetic or self-organizing complicated systems. The synergetic training created by H.Haken differs substantially from other trainings that learn to deal with complicated systems, for example: unlike synergetics, the determined chaotic theory is involved in the study of chaotic motions that are relatively small in variables or degrees of liberty. At first sight it may seem that this theory has nothing to do with complicated systems that are made up of many parts.

It is a peculiar feature of synergetics as a methodology. But does *the thesis of back persistence* have any practical significance? Let's explain it with the examples.

Today if we say that the synergetics itself consists of several layers that are parallel, it will not be mistaken. These layers are set in terms of abstract level. Let's look through those levels:

*sub-disciplinary* – layman understanding of the ordinary experiments;

*disciplinary* - individual creative processes, development of disciplinary knowledge and research objects;

*interdisciplinary* - interdisciplinary communication processes, transfer of pedagogical and educational knowledge to the interdisciplinary dialogue during the decision-making;

*trans disciplinary* – great interdisciplinary projects, processes of collecting, self-forming and functioning of interdisciplinary communication languages, self-organization and functioning, the emergence of the interdisciplinary invariants (*invariant* - a function, quantity or property which remains unchanged when a specified transformation is applied), collective consciousness, network thinking, etc.;

*over disciplinary* - creative processes, the formation of philosophical knowledge, the development of science and culture.

Each of these layers of communicative experience has synergetics special application traditions. These traditions are completely scientific and have developed from a methodological point of view on a disciplined level. It usually belongs to the social sciences. Today the use of synergistic methodology at the level of interdisciplinary communication has been extensively expanded. But at other levels the application of synergetics has just begun. So, now the synergetics shows itself as the public-social megaproject and combines the different aspects of culture with its methodology.

**Research Results**

Synergetics belongs to some parts of science branches (physics, chemistry, biology, philosophy, sociology, cosmology, logic, pedagogy, etc.).

The investigation of fractals finds its important application in the mathematical description of the structures created spontaneous form (for example, bulbs).

At the beginning level of its activity the autopoiesis theory has studied the conditions in which biological structures can survive. Unlike synergetics, preferring the mechanism of creating new structures the autopoiesis theory gives the advantage to the structure of investigating storage.

The main purpose of the dissipative structures theory, which deals with the study of physical, chemical or biological systems, is to investigate the spontaneous formation of new structures with the help of dissipative processes beyond thermodynamic equilibrium cases.

One of the main alternatives of synergetics is the theory of complexity. Although this theory, which lives the beginning level of its development, gives a number of definitions of complexity conception, as they carry so abstract character, they are not seen so efficient.

Self-organizing criticism theory is also one of the most interesting areas for developing sand dune models.

The nucleus of outlook in the synergistic consists of co-operation, collaboration, integration, coherence and

coordination. All these factors form the basis and the main conditions of the development. The told thoughts create the following questions:

- What does the synergetics give us as a scientific paradigm in comparison with Darwin's evolution theory?

- What does synergetics give us as a new scientific direction that extends the view to the world in comparison with common system and cybernetics (i.e. management of feedback systems)?

- What does synergetics give us a methodology based on the reductionism (reductionism is one of the materialist philosophical trends, it all consists of only matter, the existence of eternal and eternity of this article, the possibility of explaining intangible perceptions with material factors) and the inductive method (*inductive method* - is a method that leads to general outcomes from specific judgments or provisions) of understanding that prevails over the past 350 years, allowing for more qualitatively and correctly solving more complicated and difficult issues than the previous methodologies?

- What do synergetics or synergetic models give us to solve the events that can not be explained by classical scientific achievements with synergistic models?

It is quite easy to find answers to these questions.

Firstly, it is possible to explain many ways of development only by the theory of self-organization and synergetics. Synergetics include the theory of bifurcation (*bifurcation-separation*, *division*), the theory of catastrophes by Tom Arnold, the theory of fractals created by Benoit Mandelbrot in 1975 (*fractal* – self-repetitive and shrinking parts for ever and ever) and their organic symbiosis (*symbiosis* - the joint activity of different systems) help to find new ways of solving problems.

Even the most prominent scientist in the field of Russian science, academician V.A.Sadovnichiy emphasizes the importance of "Prigogine's paradigm" and acknowledges that this symbiosis serves to overcome predictability of any crisis.

Secondly, in modern science the theory of synergetics is explained as "philosophy or theory of complexity". In the United States of America the Santa Fe Institute which selects synergetics as a main research destination identifies the complexity with synergetics. In general, it should be noted that not complexity one of the most confrontational problems of people in all areas.

**Conclusion**

Since 2000 year the serious and rapid changes have taken place in the operational environment of enterprises and organizations. These changing include the post-industrial development of the society, the formation of the information economy, the improvement of economic and social-political institutions, the emergence of international product and service markets, new organizational services such as spreading of network, virtual and so on. But the non-material actives of the organizations are rising, but in its turn it increases the firmness of the competition.

Knowledge, information and intellectual investment become the important non-material capital. The above mentioned reasons of the competition struggle lead to problems in the reorganization of management in the local enterprises. More prospective directions for managing change in a dynamic competitive environment are based on the strategic management methodology of complex organizational systems. Thus, the interdisciplinary communication should be considered the third essential feature of synergetics as methodology. As a new science direction – Time - is particular importance and attention of synergetics. It is known that there are long-term systems, such as star systems, matter, vacuum, interstellar plasma, etc. There are also short-term systems, for example, radioactive isotopes of heavy metals, micro-particles in the atomic structure, anti-matter, and so on.

In the principle of "subordinate" of synergetics it is said: long-term systems rule the short-term systems. This principle was discovered by the Soviet mathematician, academician A.N. Tikhonov, until German scientist H. Haken, who was considered to be the founder of the synergetics. According to the current ideas, formally as a science synergetic has been formed from the laser problem in the New World.

H. Haken had put forward the scientific thesis now we call it "synergetics" during the solutions of laser-related issues. But I.R. Prigogin had come to result of self-organization and synergetics through the chemical reactions. S.P. Kurdyumov had come to the synergetics when solving the problems of regression regimens in the plasma. There are enough scientists among those who engaged in the synergetics, some of them are also busy with nuclear synthesis, for example, B.Kadomsev, V.Legasov, D.Chernavski and others. Academician S.P.Kapitsa has approached to the synergetics as a methodology of modeling global demographic problems. V. Ebeling suggested the possibility of the solution of the most difficult problems of the ecology with the synergetic approach. Mathematicians such as A.Samarski, N.Moiseyeva, V.Sadovnichy and G.Malinetsky had benefited from synergetics in the solution of problems related to mathematical analysis, modeling and forecasting of concrete situations and positions in economy, politics (geopolitics), security and other spheres. There are many scientific synergetic movements and schools in the

contemporary era. According to the indicators of 2010, such scientific schools were established in USA, Germany, Great Britain, Bulgaria, Belarus and Russia. The greatest scientific synergetic school in Russia was founded by Moscow State University, rector, academician of the Russian Academy of Sciences V. Sadovnichy. Academician V. Sadovnichy leads seminars and workshops on synergetics periodically at that university.

The Russian synergistic movement is considered largest and most influential among the same movements in the world. The clear example of it is international conferences and symposiums held in Russia. The leading synergetic scientists of the world such as I.Prigogin, H.Haken, K.Magnser, V.Ebeling, V.Poremski participated in those conferences. For example, more than thousand speakers participated in an international conference in 2004 at the Russian Academy of State Service near the President of the Russian Federation. Synergetics, unlike cybernetics, takes the back persistence as the basic condition of the development of systems such as methodology. As one of the forms of realization of “time arrow” the imperative of back persistence has been analyzed in the book “Order from chaos: new dialogue of the person with the nature” written in co-authorship with I.R.Prigogin and I.Stengers.

**References**


1. *Grof S.* Outside a brain, Publishing House, Transpersonal institute, 1993, p. 497

2. *Budanov V. G.* Methodology synergetics in post-non classical science and education. The 3rd publication, Moscow: LIBROKOM, 2009, 240 p.

3. *Suvorov V. V.* Synergetic concept of self-organization // Synergetics: Works of a seminar. T. 3. Materials of a round table “Self-organization and synergetics: ideas, approaches and perspectives”, Moscow- MSU, 2000, p. 325-337

4. *Gromkova M.T.* Psychology and pedagogy of professional activity. – Moscow, UNITY-DANA, 2003, 415 p.

5. *Verbiskaya L.A., Lisovsky V.T.* Some problems of modern higher education in Russia // the Higher education in Russia, 2002, p. 8-11

6. *Lozovsky V.N., Lozovsky S.B.* Concepts of modern natural sciences: Education guidance. the 2nd prod., SPb, 2006, 224 p.

7. Synergetics: Works of a seminar. T. 3. Materials of a round table “Self-organization and synergetics: ideas, approaches and prospects". – Moscow, MSU, 2000, 368 p.

8. Synergetics and methods of science. – SPb., Science, 1998, 439 p.

9. Synergetics and psychology. Issue 1. Methodological questions / Under the editorship of I.N. Trofimova, V.G. Budanov. – Moscow, MSU “Union”, 1997, 361 p.

# Teacher Education: Trends, Opportunities, And Responsibility

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## Abstract

This article analyzes the trends, opportunities and responsibilities that characterize modern pedagogical education. The aim of this article is to determine the characteristics of the designated educational phenomena, as well as to identify historical parallels on the example of didactic principles of Jan Amos Comenius. These didactic principles can be considered as determinants of modern educational trends. The hypothesis was made by the assumption that the progressive experience of the past often corresponds to the aims of our time and offers tremendous educational and educational resources. The main research methods were historical-graphic and comparative analysis of the source base. The theoretical study has led to the conclusion that a particular pedagogical activity is composed of pedagogical actions that are of a specifically historical nature and depend on real possibilities and conditions. This activity will determine educational trends that imply responsibility for the concrete embodiment in the pedagogical reality.

*Keywords: Pedagogical education, teacher education, didactic principles of Jan Amos Comenius, educational trends, opportunities, pedagogical responsibility.*

### Introduction

Various innovations in the field of upbringing, education, and socialization of younger generations are developed in modern pedagogical science. The accumulated historical experience in the field of physical development of a personality, moral education, and diversified education is analyzed and systematized.

Modern pedagogy appeals to the best achievements of the past, to the works of representatives of Russian and foreign pedagogy, whose scientific theoretical and practical works and creative search are connected with the ideas of humanism, concern about upbringing and education of a person, the formation of a developed personality.

The progressive, confirmed experience of the past often corresponds to the tasks of the present, and gives great resources for upbringing and education. As a result, it is not necessary to rediscover pedagogical truths or make pedagogical mistakes, instead, new pedagogical systems may be created on the steady pedagogical foundation.

For the majority of educators of the past the fact that education and upbringing dominated in political, economic and cultural formation and development, was obvious. We believe that this idea corresponds to the vector of social development at the present time. Therefore, the study of the best pedagogical achievements of the past, research and analysis of the most important trends in the history of pedagogical thought would be as valuable for the development of modern educational system as innovations and transformations.

Russian pedagogy has deep historical roots, however, we know about the presence of the influence of Western European pedagogical thought and practice on Russian pedagogy, which is a specific branch of scientific knowledge .

### Research Aim

The historically developing pedagogical reality is interwoven into and conditioned by a diverse social life. The external determinants are beyond the scope of pedagogical reality, more or less radically defining its functioning and development. (Kornetov G.B., 2012). We agree with this

postulate and when determining the methodology of our study it was assumed that the specific pedagogical activity consists of pedagogical actions that are of the precise historical nature and depend on a variety of conditions and factors.

The pedagogical nature of any pedagogical activity determines the purpose and meaning of such an important procedure as the interpretation of human history, events, names in order to solve problems of understanding the reality of the past and its design.

Another important methodological position is the understanding of the principle of historical and logical unity. Reliance on this principle allows to reveal the trends of the phenomenon under study.

An anthropological approach may possibly be applied to our study as well. A number of Russian scientists support the idea of Western European humanitarians about pedagogical anthropology as a philosophical platform of upbringing and the highest level of its philosophical understanding.

**Research Methods**

John Amos Comenius is, undoubtedly, one of the most eminent thinkers of the XVII century. In his pedagogical views, he joined the most progressive representatives of scientific philosophical thought of that time. In J. Comenius' pedagogical concept, realism is combined with humanism: teachers should rely on principles that form the basis of the human nature and contribute to the full development of a personality.

According to the scientific views of the present time, any pedagogical concept should have three essential components: a conceptual framework, a substantive content and a procedural part. (Selevko G.K., 1998)

Any pedagogical concept should have a strong ideological basis. The concept of J. A. Comenius has the aforementioned basis: his worldview is based on the concept of sensationalism. The substantive content of upbringing and education in his concept is a combination of aims and content of education and enlightenment. The main aims, according to J. A. Comenius, are: general educational (pedagogical process design) and specific aims (teaching certain knowledge). The procedural part of the concept consists of practical activity in an educational process, methods and forms of work, and also learning and discipline monitoring.

The idea of realism in the content of education and the idea of phenomenalism in educational design in Comunius' concept led him to the necessity to create a system of didactical principles and rules, that form "uniformity and stable order".

By drawing historical parallels, it is possible to identify the trends of modern education, which are generally based on the system of didactical principles of J. A. Comenius. The connection between the trends in modern education and these didactical principles may be characterized basing on the data of the system of teacher training and presented in a form of a table.

| Didactical principles of J. A. Comenius | Educational trends |
|---|---|
| The principle of consciousness and activity | Designing a personal educational route |
| The principle of visualisation | Creation of innovative scientific information educational environment in a university |
| The principle of graduality and systematic knowledge | The continuity of pedagogical experience |
| The principle of profound knowledge, skills obtaining, and exercise | Designing an innovative model of training for university students |

We believe that the implementation of the principle of consciousness and activity would lead to the necessity of creating an individual vector of development for each member of an educational process.

1) Personal educational path design.

For more effective professional development of a student the professional training in a university should be designed with the reference to personal abilities and characteristics. Therefore, the question of designing a personal educational route arises.

In the works of many scientists (Bordovsky G.A., Vdovina S.A., Klimov E.A., Merlin V.S., Surtaeva N.N., Jakimanskaya I.S., and others) a personal educational path is equaled to a personal educational route (content component), and the way of its implementation (technologies used for educational process design).

Khutorskoy A. believes, that this educational path should promote rights and freedoms of students:

1. The right to choose aims of a certain course and for personal understanding.
2. The right for personal understanding of fundamental notions and categories and to interpret them.
3. The right to design individual educational course programs.

4. The right to choose appropriate learning pace, forms and methods of solving various educational tasks, ways of monitoring, reflection, and self-evaluation of personal activity relying on individual characteristics.
5. The excess (advancing or deepening) of the content of educational courses; the choice of themes and project works.

The shift of historical eras has led to the changes in forms of education and learning tools. Due to active learning methods development and their importance it is necessary to create a special educational environment. We believe that this environment reflects the essence of the principle of visualisation regarded by J.A. Comenius as one of the basic.

2) Creating an innovative scientific information educational environment at university.

At the present time the innovative scientific activity of a university has a number of special features:

1. Innovative educational spaces make it possible to be engaged in an innovative activity at each step of its realization, from ideas to implementation.
2. Specialists are capable of creating and implementing innovations.
3. The existence of scientific educational environment that help to uncover student's potential.
4. Implementation of the research principle due to the adjustment of the learning process design.
5. Identifying gifted youth and its subsequent involvement into scientific research and innovative activity.

All the previously mentioned features determine the educational environment of a university and help to form key competences of a future professional. It would be important to mention the importance of use of information technologies in a learning process, because they activate dominant analyzers and contribute to effective learning. These technologies drastically change the way of life and the activity of future professionals. Moreover, professionals have to choose the technologies that have steady developmental positions in the world. After having mastered such technologies, a specialist becomes able to implement new methods and techniques in real practice, that would definitely help professionals to show high quality of educational activity, spending less time and saving the available resources.

We assume that the principle of gradual and systematic knowledge introduced by J.A. Comenius correlates with another educational trend – the continuity of pedagogical experience.

3) The continuity of pedagogical experience.

Professional competence consists of theoretical and practical professional activity readiness. Federal standards define a professional as a person with professional qualities of a higher level, who identifies himself/herself with the chosen profession and professional working activities (actions), able to predict the results of own actions and design an educational process in a creative way. A modern teacher must not only work effectively with gifted learners, but with not enough motivated learners, learners with disabilities, should track the development of learners of different groups and categories, interact with parents, colleagues, and have professional mobility.

Unlike theoretical study of subjects school practice for students gives them an opportunity to try themselves as teachers. During the first semester they meet their learners, do psychological tests to find out some useful information about the class, organize physical activities during school breaks and organize the activity when they are with the group of learners. In the second semester novice teachers are allowed to give lessons or plan extracurricular activities.

Invariant tasks play an important role in forming gnostic, project, constructive, organizational, communicative skills and aim to make these skills be useful when members of a learning process interact. Individual educational routes and facilities of an educational institution should be considered when creating variant tasks.

The continuity of pedagogical experience, in this way, allows to get reflexivity, integrity and practical orientation of professional training.

We believe that the need for creation an innovative model of teachers training at university is confirmed by the fact that knowledge should be obtained to the full extent.

4) The creation of innovative model of teachers training at a university.

An innovative training model, that is closely related to the implementation of professional standards for teachers as well as the implementation of applied bachelor degree programs, is based on competence and activity approaches.

The novelty of this model may be proved by the following reasons:

1. Increase in the proportion of practice in teacher training. Practice is the main tool for educational results improvement. Various types of practice are used for:
- 'launching' the interest and making students feel the necessity for theoretical training.
- Gaining primary professional experience and the inclusion of subject mechanisms of professional educational activity.
- Getting practical experience by doing professional training.
- The creation of professional environment and for promoting social interaction.
- Making it possible to carry out a holistic professional activity.
2. A training module is presented to the student as a spatial and procedural unit of an educational program. Implemented technologies provide students with pedagogical support for independent task solving.
3. Networking environment modeling becomes possible due to creation of Resource Centers, where the conditions are almost equal to real educational practice.
4. The mentoring process organization during the period of practical training of students.

**Research Results**

Consideration of educational trends through the prism of didactic principles of J.A. Comenius led us to understanding of the following results:

1. The concept of modern education is connected with the continuity of pedagogical experience. It is possible to provide such continuity by organizing professional training as 'School-University' collaboration.
2. Future teachers should have a number of working skills:
- developing, monitoring, evaluating and correction of professional activity;
- making technological decisions;
- using a variety of practical skills in a particular field;
- ability to analyze situations and choose the best ways of aim achievement considering the range of practical and theoretical knowledge;
- ability to develop and apply methodological techniques using the knowledge from various professional sources of information;
- evaluation of performance in terms of effectiveness of approaches used.
3. Educational student practice provides networking between universities and schools and practical orientation of teacher training courses: psychological barriers are removed, motivation and communication culture are formed.

**Conclusion**

The ideas of the pedagogical concept of J.A. Comenius had a noticeable impact on the development of world didactics. System changes in Russia at the end of the 20th century and at the beginning of the 21st century defined the new historical context of development of methodology, education and upbringing theory and practice. This leads to modern education goals and priorities shift. The most important characteristics of modern education are: the recognition of human value, his role and ability to develop a society, the responsibility for creating the life path.

**References**

1. Dzhurinsky A.N. History of pedagogy and education. –M.: Yurait, 2016.A

2. Gribankova A.A., Serykh A.B. Preparing researchers for an academic career: publications in international journals //

Philosophical sciences. 2011. № 9. p. 145-151.

3. Kornetov G. B. Modern understanding of the subject of the history of pedagogy // Historical and Pedagogical Yearbook. 2012.- p.37-54.

4.Kokorina O.R., Nikitin Y.V., Rubleva L.I., Rublev V.M., Levanova E.A., Pushkareva T.V., Serykh A.B. Curriculum and teaching aids for the development of safe behavior among students of secondary vocational education institutions //

Modern journal of language teaching methods. 2017. т. 7. № 2. с. 73-83.

5. Levanova Ye.A., Serykh A.B., Pushkareva T.V., Tregubova L.V. Educational environment of the university // Global scientific potential. 2012. № 10 (19). p. 212-213.

6.Mychko Ye.I., Amthor U., Zyolko A.S. On international innovation cooperation at modern universities. Baltic region. 2011. № 2 (8). с. 97-100

7. Mychko E.I. Practice-oriented technologies in modern vocational training // Lecturer XXI century. 2016. № 2-1. p. 61-64.

8. Mychko E.I., Blazhenko A.V. Research competence of the teacher in the paradigm of modern education // News of the Baltic State Academy of the Fishing Fleet: Psychological and Pedagogical Sciences. 2018. No. 4 (46). p. 12-16.

9. Mychko E.I., Zelko A.S. The problem of psychological readiness of future teachers to professional activities // Psychological science and education. 2013. No. 4. p. 23-27.

10. Psychological and pedagogical problems of modern society / Abulkhanova K.A., Baskakova Ya.A. and etc.; by ed. E.A. Levanova, A.V. Mudric. M., 2018.

11.Popova O.V., Pushkareva T.V., Fortova L.K., Ovchinnikov O.M., Serykh A.B., Gubanova N.F., Eremenko L.V.

Pedagogical conditions of student coping behavior formation: aspect of coping strategies and coping resources interaction in university educational process // Modern journal of language teaching methods. 2018. т. 8. № 5. с. 365-377.

12.Serykh A.B., Mychko E.I. Strategies of pedagogical transformations in the modern educational space // Prospects for science. 2019. № 2 (113). p. 228-230

13.Serykh A.B., Zaitseva A.A. Compositional approach as a methodological basis for the study of professional identity // Personality education. 2018. No. 2. p. 12-18.

14.Serykh A.B., Ivanova A.R. Psycho-educational approach in the system of professional training of specialists // Proceedings of the Baltic State Academy of the Fishing Fleet: Psychological and Pedagogical Sciences. 2017. № 1 (39). p. 113-116.

15. Selevko G.K. Modern educational technologies. -M.: Public Education, 1998.

16.Serykh A.B., Grudtsina L.Yu., Votinov A.A., Abramova N.G., Gaidamashko I.V., Morkovkin D.E. Algorithm of teacher projecting and training activity in the process of student social-right culture formation // Astra Salvensis. 2018. т. 6. № s2. с. 329-346

# Pedagogical and psychological determinants of educational failures of underage pupils

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## Abstract

The article is dedicated to scientific-pedagogical and psychological analysis of the backwardness problem in education which is main activity kind of underage pupils. The author notes that, in all periods of school education, the improving of mastering quality in education had been topical as one of the serious problems that put in front of schools by the states and had also been a leading direction in scientific-pedagogical and psychological researches. Starting from the founder of scientific pedagogy J.A.Comenius during last 300 years, many researches applied to this problem, and put forward a number of psycho-didactical conceptions and various education models. But despite all these, until now it has not been possible to find simple and universal solving way of the educational backwardness problem and "chronic failures" of pupils. The author considered that educational failures started from early school-age period and he analyzed numerous determinants and symptoms stipulated that problem. He also attempted to open up pedagogical, psychological and neuro-physiological determinants by referring to the researches of many pedagogues and psychologists who investigated this problem.

*Keywords: education, educational success, mastering, educational failures, developer education, educational backwardness, education motives*

**Introduction**

After the 17th century when the class-lesson system was formed, over the past about 4 centuries period, the level of learning indicators of pupils had been stipulated with characteristic features of traditional educational model and characterized with orientation of pupils to education and their ability to remember information. Here the main purpose was directed not to mastering the methods of acquiring knowledge belonging to separate subjects, but to learn knowledge, abilities and skills belonging to any subject, because traditional education was based on information database. That is why the scientists always continued their pedagogical and psychodidactical searches in the direction of enhancing education quality and for this purpose, they initiated to create different didactic theories.

**Research Aim**

The aim of this research is complex analysing of the factors which stipulated educational failures of pupils at early school-age period and systematizing of them in the standard of pedagogical and psychological determinants.

**Research Methods**

In research process there has been referred to philosophical, general and specific scientific methodologies, systematic and functional approaches based on them, determinism and development principles in the activity, analyze of observation, inquiry and activity products, methods of induction, deduction, also theorotical and mathematical-statistical analyze.

Raising the quality of pupils' learning in education is the problem that closely related to social interests of the state and society. Because, the main subject of socio-political, socio-economic and spiritual progress of society is a creative thinking, highly intelligent person. "The content of education in general education school should provide the formation of modern world's perception in pupils. Such appearance can be created only on the basis of unity of analytical and synthetic approach to reality". [1, pg.31]. During all the periods of

school education, the problem with improving of education and learning quality had been one of the direction of scientific-pedagogical and psychological researches in education policy of the states. The prominent representatives of scientific pedagogy J.A.Comenius, J.Locke, J.J. Rousseau, J.H.Pestalozzi, D.Diderot, K.D.Ushinsky and etc. explained the pupils' learning level of education with teaching conditions, cognitive psychology, application of educational methods and other different factors, but many pedagogues and philosophers unilaterally elucidated the problem from the position of heredity theory. This theory was about the inheritance of children's character, skills, talent and abilities from their parents. Although in former times, the famous pedagogues had not referred to modern terminological database associated with educational backwardness, but they coordinated the causes of this situation with the desire of children to learn, lack of diligence and learning interests.

In XIX-XX centuries some biogenetic theory-based approaches came into sight in the formation and development of personality. A.Jensen, J.Oyun, W.Coins, S.Bert, H.Eysenck, J.Gray and etc. coordinated the source of educational backwardness and failures of pupils not with social factors, but genetically racial and ethnic factors. From the 1950's in the former USSR land backwardness problem accompanied by educational failure of pupils forced the state to make reforms in education policy, to form new optimal conceptions and experimentally testing them that supporting to reach the goal fast. Under the leadership of Russian scientist L.V.Zankov was started up numerous researches based on the idea of "developer education". The focus of the conception of "developer education" offered by L.V.Zankov was the general development of children. He set the tasks for this education model to form observation, intellectual activity and practical movements in pupils. The general development was determined with the level of consolidation of mentioned 3 aspects as an indivisible system.

The principle of "setting up the education at high level of difficulty" requires from students to fully mobilize intellectual and spiritual forces. Then the pupil faces the difficulties relating with perceiving main point of learned events, dependences among them, scientific and cultural values. In the XIX century talking about the difficulties of education work, the great Russian pedagogue K.D.Ushinsky wrote that education is a serious and hard long-term work with full of ideas, and it is gained by sweat and blood.

Starting from1960 there was occurred a number of new didactical conceptions in education process that aimed at raising the efficiency of learning. Here we can concern (V.V.Davidov, D.B.Elkonin), "Formation of intellectual movements by stages" (P.Y.Galperin, N.F.Talizina) "Problematic educational conception" (T.V.Kudryavstev, A.M.Matyushkin, M.I.Makhmutov, V.Okon), "Productive and creative thinking" (Z.I.Kalmikova), "The character of pupil's activity in education process" (L.M.Fridman), "Conception of formation of intellectual movements" (N.N.Pospelov), "Conception of formation of thinking operations",( E.N.Kabanova-Meller), "The development of personality" (A.G.Asmolov, L.I.Bojovich, V.P.Zinchenko, V.S.Mukhina, A.V.Petrovsky, D.I.Feldsh-teyna), "Learning through imagination" (A.Alizade), "Learning through reception" (D.Ansyubil), "Learning through discovery" (U.Hajibekov, J.Bruner) and etc.

From the 80$^{th}$ years of the XX century humanization ideas in education started to penetrate pedagogical practice. Such an idea was put forward that the education couldn't develop just on the basis of mental development of human. That is why a number of innovative-pedagogues (S.A.Amonasvili, S.H.Lisenkoya, I.P.Volkov, V.F.Shatalov, E.N.Ilin, T.I.Qoncharova and etc.) created their own original didactical system that was alternative to administrative and academic pedagogy.

In the XX century many pedagogues and psychologists who conducted extensive and systematic studies on the problem of backwardness in education, approached the problem differently and came such a conclusion that, if the pupil was backward in education or faces failures, then the main reason of this should be looked for firstly, in non-optimal setting of education process at school, careless approach of parents to the education of child. Educational backwardness, firstly is a psychological problem. To explain this problem on the basis of the principle of "developer education", first of all, its psychological sources should be analyzed. [2, pg.195].

Well-known pedagogues and psychologists E.Hurlok, C.Holt, Y.Radlinskaya, R.Qall, Q.Kaçinskaya, N.A.Menchinskaya, N.I.Murachevski, V.A.Krutetski, L.S.Slavina, G.I.Shukina, J.K.Babanski, N.Y.Melkov, M.M.Mehdizade, M.A.Muradkhanov, Y.S.Keri-mov, A.A.Alizade, A.S.Bayramov, M.A.Hemzeyev, N.Kazimov, B.Ahmedov, M.A.Ismikhanov, A.L. Zeynalov, S.H.Akhundov and etc. proved with their scientific researches that, each child who is mentally and physically healthy, absolutely normal and provident, he can achieve successful results in education. The famous Russian didactic M.N.Skatkin was writing: "When underage schoolchildren give problematical explanation to the educational material, for the purpose of studying it through discovery, they can master theoretical concepts and summaries related to cognitive issues". [1, pg.33].

As known that, traditional pedagogical system based on explanatory-illustrative method resembled factory-industrial technology that educated children on massive

standards. The limitation of education system based on this technology was known for a long time and there was no doubt about it. However, to work in a new style, teachers needed not to the explanation of the secrets of pedagogical profession, but reliable technologies directed to their development, to be learned by pupil knowledge, skills and abilities. [3, pg.292].

The manager of The World Bank Group's Global practice on Education Harry Patrick conducted a monitoring related to this problem in December of 2018 year. The results of this monitoring which was about educational conditions are very interesting. He said that they had tested in middle-income countries that the 4th grade students can pass. We asked them the total of 28*19. Most of the pupils couldn't reply this answer. We conducted similar tests in Azerbaijan schools too. Our question was like that: There are 218 passengers on board. 191 of them are crew members. How many people are there on board totally? The vast majority of pupils couldn't answer this. [4].

The prominent Azerbaijani psychologist, professor Abdul Alizade who named the educational backwardness of pupils as "chronic disease", was writing: "Unfortunately, educational backwardness, hasn't lost its topicality yet either in pedagogical psychology or school pedagogy. For very heavy troubles was found the way out, but educational backwardness problem hasn't solved yet in school practice". [2, pg.191] Russian psychologist A.N.D.Levitov who incorporated the concept of "psychological components of learning" to educational psychology grouped them as follows:

1. Positive attitude of pupils to education;
2. Processes of sensual acquaintance with material directly;
3. Thinking process like active operating of the acquired materials;
4. Storage processes of operating or acquired information. [5, pg.152-153]

The pointers of mental development of pupils in education are determined with the level of personal qualities like intensity, quickness, independence, criticism of thinking activity and etc. The pupils with low mental development indicators, cannot process the information showed on the terms of problem, give false opinions, and in most cases, try to find the answer by referring to trial and error method.

Chronic failures' determinants of pupils in school education are variegated. Imperfect readiness for school teaching and failing to reach the period of school adolescence can be attributed as the most common causes of these. Weak development of small motor is one of the extensive barrier encountered by underage pupils in writing education. They have difficulties in writing of letters and figures according to calligraphic rules because they cannot control their fingers and exquisite movement of fingers breadth. Cognitive processes with low level, and the superiority of instinctiveness level of them, hinders children from mastering teachers' instructions. The character of intra-family relations, authoritarian family style of upbringing, prolonged family conflicts, asthenia, general weakness of working ability, organism and immune system of child can be considered as main reasons of chronic educational failures. Elementary education stage that children involved in early school age period allows them to get initial scientific knowledge about nature, society and various aspects of human activity, to learn any vital skills and abilities, and along with this it enlarges their worldview. "The formed educational work demands thinking activity that provides understanding of educational material, and its comparison with the previous one, concretization of intellectual conclusions, intelligible rules and other operations". [6, pg.127].

School life has exceptional importance to become social subject, to acquire social qualities by creating radical changes in the social situation of the child's development. In this age period educational activity acting as a leading role, acts as a stimulus in formation of underage schoolchildren's cognitive, emotional and volitional qualities and stimulates development. "For mastering educational activity, early school age period is a sensitive period. This is more optimal and suitable period". [6, pg.11].

By talking about the exceptional value of active mental work in formation of cognitive abilities of underage schoolchildren, K.V.Bardin writes: "Only intellectual work of pupils on the presented material allows them to comprehend the content of the material they explained, to follow its submission logic, sequence of explanation, to make out the key questions and to make essential conclusions mentally". [7, pg.50]

As a result of long-term research, another Russian psychologist S.N.Kostromina ascribes the following difficulties which lead to educational backwardness of underage schoolchildren:

- letter missing in writing work;
- doing orthographical mistakes, while knowing the rules well;
- difficulties in solving mathematical problems;
- difficulties in telling the text;
- impatience, incontinence;
- difficulties in mastering new knowledge;
- dirty exercise-books regularly;
- not knowing well, the multiplication and addition table;
- impossibility to perform freely independent work assignments: [8, pg.256]

I.V.Dubrovina, A.F.Anifriyev, S.N.Kostromina and etc. divides underage schoolchildren's educational failures into

two main groups, first group's difficulties are coordinated with cognitive deficiencies, but second group's difficulties are about deficiencies in the development of motivation field.

On the basis of researches on educational activity Russian psychologists A.L.Venger and G.A.Sukerman had come to such a conclusion that the main factors leading to educational failures of underage schoolchildren are the followings: intellectual l backwardness, slowed mental development, psycho-physiological infantilism, pedagogical desolation, hyperactivity, asthenia, low motivation. [9, pg.92-95]. According to psychologists, 10 % of people on the Earth are left-handed and this tendency is getting to increase in modern age. Practically, in each class of elementary school we can encounter 1 or 2 such pupil. Although left-handedness is not pathology or developmental defect, but it causes certain hindrances to fulfill exercises relating with writing, painting and some labor activities accurately and neatly. Russian psychologists V.P.Talonov and Y.Z.Gilbukh divide underage backward schoolchildren into 3 groups:

A-pupils whose intensity of educational activities is weak:

B-pupils whose effectiveness of educational activities is weak;

C-pupils in which observed both of signs of intensity and effectiveness of educational activity.

So, we can divide the determinants of backwardness of pupils in education at early school-aged period into 3 groups as pedagogical, psychological and neuropsychological:

1. Pedagogical determinants (educational activity with low intensity level, educational activity with low effectiveness level, numerous missed lesson, not providing differential and individual approach at the lesson, the behavior of teacher, the deficiency of speech and sensor sphere of children, insufficiency of love and care in the family, improper control on success and failures of child)
2. Psychological determinants (disappearance of educational motives and non-disciplinaire, disturbance of emotional and volitional sphere, long-term breaks during trainings, lack of educational skills and abilities, weak development of intellectual ability);
3. Neurophysiological determinants (general weakness of child's organism, poor type of upper neural activity, poor sense of hearing, eyesight and disorder of speech articulation, minor infringements in the cerebral cortex, weak development of intellect.)

"The situation of learning covers complex problems like cognitive, emotional and social aspects of behavior. In this situations the individual should imagine other persons' expectations, situations, needs and etc." [10. pg.192]. The developer education is one of the educational functions that expressed in general mental development of learners, in formation of features of psychical processes. "Entering the school allows the child to gain a new life position exceeding the boundaries of their own life style, to join socially significant educational activities. There has rich material in educational process that will ensure cognitive interests and need for imagination of child". [11, pg.17] Dynamic indicators of children's development, successes in educational activity, arbitrary level of cognitive processes, alternation speed of interiorization and exteriorization, self-organization and regulatory skills for intellectual activity, positive learning motives can be reviewed as reliable indicators of their educational capability. "The researches prove that, at the time of the lesson, I-II grade pupils can keep their attention and efficiency totally 30-31 minutes with intervals. So this factor should be taken into consideration and it is needed to make small breaks during the lesson". [5, pg.64]. American psychologist John Holt approached to the problem from unconventional point of view in his work named "The reasons of children's failures" published in 1996 year. He wrote: Some children stay back in education because they have wind up, and for some others school is boring [16, pg.6].

All researchers who has investigated the reasons of failures of pupils in school education till now, came to such a conclusion that this problem has a complex nature and they stayed on several main determinants. A group of researchers consider that main reason of educational failures of children is a poor social and economic life conditions, others coordinate the essence of the problem with defects which showed themselves soon in pupils' bio-psychological preparation for education, and third group of investigators associate the problem with imperfect educational works in schools. [15].

Education is a specific kind of activity having learning content and it is based on cognitive, emotional and volitional components. Main purpose of educational strategy is consisting of knowledge vaccination about the basics of science, forming their application skills in practical activities. When the learning is based on motives coming from cognitive needs, it acts in education process as the main factor ensuring its movement. By presenting learning skills as an important factor in educational process, V.O.Punski emphasizes the necessity of following didactical requirements for formation of that:

1. Learning motivation; 2. The implementation of knowledge formation and the acquirement of skills in a common way; 3. Activating pupils in educational process; 4. Topicality of education; 5. Legacy in education; 6. Compatibility of exercise system with formation of educational and cognitive activity; 7. Following of instructions; 8. Formation of working with textbooks. [12, pg.30-50]

In Azerbaijan there has been applied national curriculum model of general education since 2008 year. New learning-based education model and the conception of (A.A.

Alizade) "Transition from traditional education to mentality school" based on this is guided on psycho-didactical principles and synthesis of developer educational conceptions that expressed both traditional pedagogical and psychological values. So that, according to H.A.Alizade "new pedagogical mentality" is considered great solemnity of psychological thought on the verge of two centuries and XXI century. New successes of modern school are based on and will be based on new psycho-pedagogical achievements of contemporary life. [13, pg.14-15] In modern age, main purpose of primary education which is second stage of general secondary education is to train learners reading, writing and computational skills, to form primary vital knowledge, logical thinking elements, aesthetic and artistic pleasure and other characteristics. "Education process organized by society aimed the necessity of such activity formations, that one of them is directed to transfer human experience to learners, another one is directed to be gained public experience by learners, the transformation of this to private resources of pupils. Both activity forms participated in educational process are necessary and contain the essence of education process. [14, pg.15] As a leading activity kind in the life of underage schoolchildren, education provides the development of theoretical thought, the skills compatible with this (reflection, analyze, synthesis, intellectually planning and etc. motives of educational activity).

Relating with the subject of research during inquiries held in schools №5 and 14 of Sheki city, we analyzed the characteristic difficulties faced by pupils in educational process and came to following conclusions: approximately 20 % of pupils have letter-missing problems in writing works. Psychological reason of this case is mainly connected with phonemic hearing of low level, focus centering problems, non-formation of self-control methods and individual and psychological features.

New content standards and methods grounded on curriculum model of education in contemporary era, create a stimulus for development of theoretical mentality but they cannot provide a fundamental improvement of pupils' educational outcomes. In 18-20% of underage schoolchildren there has been encountered orthographical mistakes, in 15-16 % of them inattention and absent-mindedness, in 15-16% difficulties closed to problem solutions, in 14% difficulties closed to telling the text. 10-12 % of underage schoolchildren don't know perfectly addition and multiplication tables, 20 % of them have difficulties in doing homework freely and nearly 10 % of them forget their copybooks, books and other equipment at home.

According to the facts we have obtained from our research we can say that, the majority of I grade pupils involved to systematic education (especially coming directly from family) have difficulties in adapting school to life, and they cannot focus their attention. They face a number of impediments in mastering reading and writing skills during the teaching period of alphabet, also they have much more difficulties in differentiating the words that indicated sign and movement, in calligraphic writing of letters, in differentiating of the types of sentences according to purpose and intonation. In mathematics teaching 20-25% of pupils are more backward in differentiating the compound of numerals, in fulfillment of rhythmic counting operation and in working out a plan for solving the problem. In II grade the pupils face characteristic difficulties relating with reading and writing education such as in clarifying the opinion they listen to, in compiling questions, in tense changes of verbs. In mathematics teaching II grade's pupils have difficulties in solving complicated problems. Underage schoolchildren of III grade face more problems in coordinating main idea with life, in writing essay, composition, in correcting the solved problem, in getting to know dependence between operational components and result.

In IV grade in native language lessons the pupils have difficulties in distinguishing principal and secondary members of the sentence, and in math lessons in solving problems of complicated kind that required to use special logical judgement.

The analysis of observation facts shows that, most of difficulties of underage pupils is closed to superiority of the non-instinctiveness level of their mental-cognitive processes, the superficiality of differential skills of cognition and mentality related with distinguishing and comparing.

One of the psychological factors effected to the educational outcomes is attitude of elders (teachers and parents) to successes and failures of the children during early school-aged period. According to their opinion "good children" are such children who know too much, study diligently, solve the problems easily, get successful marks. The elders don't attach much importance to most of natural and transitory failures of children arising from difficulties in education in first stages of school life, that's why it is occurred negative change in their attitude towards children. It leads to appearing "the weak link syndrome" in attitude to children. Their negative assessment not only impairs self-confidence feeling, also causes excitement and inadequate low self-assessment.

Such psycho-emotional loading and agitation keeps the psychology of child in a tense situation constantly and as a result, the child should face difficulty in concentrating attention on educational assignments. He always feels threat on himself that's why cannot distinguish the main ones from by-matters, do mistakes frequently.

One of the determinants causing unlimited exigency and relating with this excitement of punishment, chronic educational failures of underage schoolchildren is inattentive attitude towards the outcomes of educational activity of child. Such non-critical attitude forms the position of carelessness in children towards their own learning outcomes, causes negative orientation of their educational construction, weakens the motivation. One of the main factors leading to educational failures of all schoolchildren, as well as small-aged schoolchildren is destructiveness of family education. Observations and researches based on their results prove that, educational failures are more common among the children from problematic, neurotic and crucial families that attributed dysfunctional family kinds. Continuous family conflicts, non-optimal upbringing style of the parents are the factors causing the decrease in teaching indicators. Under the influence of unfavorable family environment, the nervous system of child cannot develop normally, asthenia is getting to develop, the cases of fast tiredness, thoughtful mood, weakness of attention and memory increase and begin to assume irreversible character. Chronic educational failures of child cause to change the position of not only elders also his contemporaries in attitude towards him. Inconvenient conditions of social development of underage schoolchild lead to pessimistic mood against reality and improvement of depressive tendencies in them.

**Research Results.**

According to the facts we have obtained from our research we can say that, the majority of I grade pupils involved to systematic education (especially coming directly from family) have difficulties in adapting school to life, and they cannot focus their attention. They face a number of impediments in mastering reading and writing skills during the teaching period of alphabet, also they have much more difficulties in differentiating the words that indicated sign and movement, in calligraphic writing of letters, in differentiating of the types of sentences according to purpose and intonation.

In mathematics teaching 20-25% of pupils are more backward in differentiating the compound of numerals, in fulfillment of rhythmic counting operation and in working out a plan for solving the problem.

In II grade the pupils face characteristic difficulties relating with reading and writing education such as in clarifying the opinion they listen to, in compiling questions, in tense changes of verbs. In mathematics teaching II grade's pupils have difficulties in solving complicated problems.

Underage schoolchildren of III grade face more problems in coordinating main idea with life, in writing essay, composition, in correcting the solved problem, in getting to know dependence between operational components and result.

In IV grade in native language lessons the pupils have difficulties in distinguishing principal and secondary members of the sentence, and in math lessons in solving problems of complicated kind that required to use special logical judgement.

The analysis of observation facts shows that, most of difficulties of underage pupils is closed to superiority of the non-instinctiveness level of their mental-cognitive processes, the superficiality of differential skills of cognition and mentality related with distinguishing and comparing.

**Conclusion**

So, we can divide the determinants of backwardness of pupils in education at early school-aged period into 3 groups as pedagogical, psychological and neuropsychological:

1. Pedagogical determinants (educational activity with low intensity level, educational activity with low effectiveness level, numerous missed lesson, not providing differential and individual approach at the lesson, the behavior of teacher, the deficiency of speech and sensor sphere of children, insufficiency of love and care in the family, improper control on success and failures of child)
2. Psychological determinants (disappearance of educational motives and non-disciplinaire, disturbance of emotional and volitional sphere, long-term breaks during trainings, lack of educational skills and abilities, weak development of intellectual ability);
3. Neurophysiological determinants (general weakness of child's organism, poor type of upper neural activity, poor sense of hearing, eyesight and disorder of speech articulation, minor infringements in the cerebral cortex, weak development of intellect.)

**References**


**1.** M.N.Skatkin. Improving of the education process. Moscow, Prosvehseniye, 1971.

**2.** A.A.Alizade. Psychological problems of modern Azerbaijani school. Baku, Pedagogy, 2004.

**3.** Pedagogy: pedagogical theories, systems, technologies/ S.A.Smirnov, I.B.Kotova, E.N.Shiyanov and others, Under the editing of S.A.Smirnov, 4th edition, corrected:-Moscow:, Publishing center "Academy", 2003.

**4.** https://report.az

**5.** V.A. Krutetskiy Psychology of teaching and education of pupils. Moscow: Prosvesheniye, 1976.

**6.** A.A.Lyublinskaya, Child psychology, Moscow, Prosvesheniye, 1971.

**7.** K.V.Bardin How to teach children learning? 2nd edition., addition and .Moscow:, Prosvesheniye, 1987.

**8.** O.N.Istratova. Reference book of the pupils of primary schools, 6th publishing house, Rostov-On-Don: Phoenix, 2008.

**9.** A.L.Venger, G.A.Chukerman. Psychological examination of underage pupils. Moscow, Vlad's-Press Publishing house, 2003.

**10.**M.V.Gamezo., V.S.Gerasimova., L.M.Orlova Senior preschooler and junior schoolchild: Psycho-diagnostics and correction of development- Moscow:, Publishing House of Practical Psychological Institute. Voronezh: The Scientific Production Association, "MODEK", 1998.

**11.** Psychical development of underage pupils. Experimental and psychological research. /Under the editing. V.V.Davidova. Moscow, Pedagogy, 1990

**12.** V.O.Punskiy. Alphabet of education work. Moscow, Prosvesheniye, 1988.

**13.** H.A.Alizada A way going from traditional education to new pedagogical mentality./Abdul Alizada: materials of republican scientific conference named "From traditional education to mentality school". Baku: ASPU, 06 December 2017 year.

**14.** G.I.Shukina. Activity role in education process. Moscow: Prosvesheniye, 1986.

**15.**https://didactika.ru/neudachi-v-uchebe/143-prichiny-neudach-v-uchebe.html

**16.** John Holt-The reasons of children's failures- Translated from English, Saint Petersburg, "Crystal", 1996.

# Music As A Psychological Factor That Has Impact On Motivation And Dreams Of The Students

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## Abstract

This article is about impact of music. Music plays a unique role in motivating students in teaching along with the factors such as parent, teacher, school environment, teaching methodologies, etc. It was noted that, the effect of music continues to grow, while the effect of all other factors is weakened in adolescent period of students. The results of surveys indicate that one of the factors that motivate students in the learning process is their dream of future life. It has been discovered that these dreams are mostly related to the music that they listen. At the same time, when the students were asked the question "What would you name music?" the words "Life" and "Dream" were the most common answers. This fact has also been ensured during the research; most teenagers listen to music while studying. It has been discovered that, music that is listened in adolescent years has a serious diagnostic significance for children's attitudes towards themselves, their homeland, their values, their love, their future.

*Keywords: education, music, thinking, imagination, brain, psychology, motive, motivation*

**Introduction**

There are several factors that motivate students in teaching: parent, teacher, school environment, teaching methodologies, and so on. What factors motivate students during adolescent years, when the impact of all these factors is weakened? As a result of our surveys, we have found out that one of the factors motivating students is their dreams of future life. When do most people dream? Answer: While listening to music. It is no coincidence that when the students were asked the question "What would you name music?" the words "Life" and "Dream" were the most common answers. The results of the survey also show that teenagers listen to music while doing their exercises. The magnificent names given to the "music" concept during the survey make people amused. The problem occurs when teenagers give these magnificent names to what kind of music. Music that is listened in adolescent years is a kind of diagnosis for children's attitudes towards themselves, their homeland, their values, their love, their future. Music is the most effective kind of art. Music can heal person, and also cause illness. Music is a type of art and it has power to therapy. But is the music which is mostly listened by majority of teenagers kind of art or not?...

Entrance of music to our brain is realized through "schemes." Actually schemes: music tracks listened in early times of our life, and frequently heard songs are the personality patterns of the person, which together with the melodic and harmonic structures of these songs are the effects of these musical traits in the mind (subjective sense relationships with music). After the certain age people perceive a music melody with their perceptions in their minds, and communicate with them in accordance with these schemes. According to Leventin, these circuits work like filters with vital importance and they determine even "what and how we accept" [3]. Music is the art of organization of sounds within a certain time frame. And when does the

organization of the sounds turn into an art? How do our harmonies, rhythms, melodies, words that come from our ear to our brains transform us into a citizen, personality, and professional?

Evaluating the three main components of the training - education, development and upbringing criteria as a new pedagogy of thought, A.Alizada used the concept of "taxonomy" to systematically characterize the training goals for the first time in Azerbaijan since 1996. All these issues have been reflected in the 3rd Education Taxonomy. [1]: a) historical memory; b) self-consciousness; c) self-awareness; d) self-assessment; d) emotional evaluation; e) national spiritual qualities.

First of all, let's look at the impact of music on intellectual fields. In 1997, H. Gardner noted in his article entitled "The Musical Mind" that music is more special than any other field of intelligence, and is more sensitive and culturally sensitive in comparison to other areas. He has shown that music is a means of helping some people to make the right decision, to think and to work and more importantly, it is a tool for the development of other intellectual fields. The researches confirm the importance of music education in modern educational approaches and confirm the positive impact of music on the development of other intellectual fields.

Influence of musical education on word-language intellect. In 1952, the relationships between 278th and 9th grade pupils were examined in the experiment conducted by Hol [14].

In the experiment carried out by Remy and Frances Campbell (1966), they taught some games with songs to the students of preparatory class at the North Carolina University. As a result, their IQ ratios increased from 10 to 20 points and their reading abilities improved [14].

In an article published in Nature magazine in 1996, it was observed that the results of the students who practiced music in the first grade were higher compared with the others who did not practice music in the first grade.

Influence of musical education in the field of logical-mathematical intelligence. A group study by Gardner, Fox, Jeffrey and Novles (1996) showed that reading skill of the students who enrolled in enriched, stage-by-stage, skill-based music programs were higher than those who did not participate in the music program [14].

In 1998, an "art workout" was added to the curriculum of selected schools in Chicago, and after this addition, the results of the students' at math subject increased 20% [7].

Professor James S. Catterall conducted a (national) study to investigate the success of the art. In the 1988 study, there were 25,000 middle and upper class students. Catterall studied the students who were interested in art, mostly from rich families. The results of the children from rich families are higher than the children from poor family. For this reason, Catterall has researched the activities of 6,500 pupils from the 8th to 10th grades, mostly from families with the lowest financial status.

The relationship of children from poor families with music was 4 times lower than the children from well to do families or not at all.

The students were researched for 3 years. When they start 10th grade, the results were announced. 41.4% of them entered the most successful group of humanitarian and math exams. Percentage of students with less relevance to art was 25% [7].

Michigan State University has been a STEM graduate in 2013. Children who are engaged in music have been investigated for their innovative, patented and business-like skills. It has been discovered that those who engage in music are eight times more successful than others! [7]

The researches revealed that, the most essential reason to achieve success is to be engaged in art for a long time.

According to the researches carried out by Robert-Boot Bernstein and his friends in 2008, the Nobel Prize winners are more interested in art than those who did not receive awards and the general population [7].

Influence of musical education on visual-space intelligence. According to the results of the research at the University of California by Frances Rocher and Gordon Shaw, skills to gather objects together of the students who participated in the 30 minutes of group music lessons and 10-15 minutes of piano lessons were higher than 0.80% higher than the students who were not involved in music. According to Gardner (1997), music contributes to children's choice, thinking, and other activities, and positively influences the development of other intellectual fields.

Influence of musical education on physical-kinesthetic intelligence. Long-term studies on the research entitled “Musica Research Notes in Fall”, 1996, has confirmed the positive effect of music on the physical-kinesthetic intelligence. The effects of the Kodaly (Kodaly learning

method - a musical training method developed by Hungarian composer and music teacher Zoltan Kodaly. Today, this method is also used as the main musical training in Hungary) method on the educational process was investigated. As a result, the musical programs included in this method have been shown to have a positive effect on the development of psychomotor and cognitive abilities of students.

According to a survey conducted by McCarty, Mc Elfrec, Riche and Wilson in 1978, significant changes were observed in students' behavior on school bus, which began to engage in music.

Impact of Music Education on the Internal Intelligence. According to a study conducted by Marta Mid Giles, music plays a special role in children's well-being. Children with music education feel better emotionally than children without music education. Throughout history, observations and studies have shown that musical education and musical therapy have a significant impact on people's lifestyle, emotional spheres, and communication skills. Susan Black points out in her research article entitled “The Musical Mind” that the nervous system of newborn babies is better developed by music. The most important result of the research is that music helps to develop the brain and develop organizational skills in children who are constantly engaged in music from his / her early years. According to the results of Linguistics and Mayer's research, children's musical education at an early age positively influences the development of their musical and rhythmic intelligence (musical-rhythmic intelligence - thinking with rhythms, notes, recognizing different sounds and creating new sounds, rhythms, setting rhythm and tonality, sensitivity to surround sound and musical instruments). Our observations and research also confirm the accuracy of these results.

Children's interest in music begins with the mother's womb, about at the age of 10, the period of development of schemes begin to develop, music searches are on the agenda during this time. During the age of 14, the musical styles began to form in a healthy form, with the effects of the music that had been listened until then. All musical compositions that have been listened after this period are classified as "liked" or "unwanted" being evaluated according to these forms of youth.

Our brain does not accept anything that does not make a sense. Senses are the basis of our study and communication with the world. Indeed, we should remove the educational program from the computer disk information download process and need to work on children and youths to dream, risk, love, focus and more. The school and university period is the fastest changing period of the brain and in this period social life patterns are most clearly defined. At this time, a dull training course is not consistent with the dynamic brain structure and development of young people.

Human beings engage in a standardized educational program, most of the age at which creativity, social skills, personal abilities emerged and formed. Anxieties, failures, psychological disturbances, etc. are the natural consequences of this situation. The content of modern education, curricula and training strategies should be based on recent scientific knowledge about the capabilities of the human brain and its developmental characteristics. In other words, the realities of human brain over the last years should be taken into account in education and training.

According to the latest research, music contributes to every single part of the brain, not just the right hemisphere. Music provides harmonic development of brain hemorrhoids. Music, which is a code-carrier of culture [8], plays an important role in the formation of identity with national-moral values and relevant qualities combined with national rhythms. At the same time, if we pay attention to rhythms, we can scientifically explain the consequences of non-professional music, such as rap, rock, and so on. Zoltan Kodaly of the Neuroilment Institute says "there is music that is a regular measure of every culture, with smooth strokes that provide temporal coordination from the performers, and stimulates an equally distinct motor reaction in the audience." This attitude of hearing and motor systems is human beings emerge from the very beginning of life. The process of catching pace and the process of automatic response to rhythms are conveyed the word "fun", which is a very mechanical expression. Research shows that the responses to rhythms have come before the rhythm. They wait for their size, understand the rhythm, and form their inner patterns or templates. These internal templates are surprisingly flawless and healthy: According to Daniel Levitin and Perry Cook, people's temp and rhythm memories are exceptionally sensitive and sharp. It is known that Galileo utilizes music to measure the rate of falling down the rotating bodies on curved surfaces. There were no sensitive stopwatch or hours at that time, and they hum a melody in each test, and get the most correct results with this tool [3].

Music enriches, refines and gives life to the imagination of students. Note that, according to commonly accepted ideas, as long as he can imagine, human existence becomes meaningful and interesting. The findings from recent studies have also reaffirmed that the human brain's abilities are inexhaustible. It should be taken into account that the ability to make meaningful and useful imagination is one of the most

important human abilities. What students are dreaming about and what they are daring to imagine their future development trends and levels of development is effective and reliable diagnostic and preconditioning information. Biographical analysis visually reveals that in most cases, people live the life they created and believed in their dreams. The effects of the imaginary habits on the human brain have been confirmed by many studies.

A study has been conducted with basketball players in America. There are three groups. One of the groups is constantly throwing the ball in the basket, and the other group is instructed to just revive this process in their brains. The third group was instructed to throw a ball to the basket in the real and imaginary. As a result the success of those who hit the ball into the basket in real was 22%, success of the second group who revive this in their imagination was 21%, and success of the third group who both throws the ball into the basket and imagine it was 40% [5].

In another study, a group of people dreamed of playing music on the piano every 15 minutes each day. At the end of a week, researchers are researching the development of areas that are responsible for controlling their fingers in the minds of people who simply think they are playing the piano. That is, simply imagining what they are doing with their finger can make it possible for people to change parts related to motor skills of their brains [3]. This is a great opportunity for the formation and development of human capabilities!!!

A large part of the content of modern education is aimed at forming technical skills and abilities in students. As a rule, the lessons that lead to the development of imagination and creativity are viewed as "second-class" lessons and are mainly used as a leisure time evaluation tool. It should be ensured that classes such as music, painting, handicrafts, design, drama, dance, and sports are in the forefront of the curriculum primarily in the elementary and secondary education levels, providing students with body movements, art and creative motives to get to know themselves and the world more closely. The educational experience of many countries also confirms this fact.

In the learning process, the importance of emotional spheres is great, and we have already mentioned that our brains cannot accept anything perfectly unless it connects with it through feelings. Emotions are based on learning and communication with the outside world. We must accept the reality and say it in relation to this issue and first of all, we should create the love and interest of the students for education.

Feelings and impressions are unforgettable. The content and approaches of modern education should have a positive impact on each student. Modern teaching methods should be based on learning the dreams of the students, their desires and expectations for education. We need to create an education with the tools that liked by students. (Schedule 1, 2).

**Schedule 1.** As a result of my survey with 397 (7-8-9 grade) pupils in Azerbaijani schools, only 21 students were satisfied with the current classroom study, answering the question "How would your classroom be better suited for you?"

| Number of students | Answers |
|---|---|
| 21 | I am satisfied with the process of the current lessons |
| 53 | I want the lessons to be amusing. |
| 16 | I want the lessons to be carried out by groups |
| 93 | I want the lessons to be interesting. |
| 20 | Some lessons could have educated through games in order to understand them |
| 39 | I want the lessons to be easy. |
| 155 different answers | -If the lessons were practical, we could say our ideas; - With music, with songs; - Teachers should not scream when the student does not know; - With examples; - With experiments; -through studies; -Debated; - Trough different methods; - Through 3D computers; -If the teachers were more prankish; -Teacher should be positive –The lessons should be carried out in the yard, outside; - If there is no homework; - More intellectual teachers; - if the teacher do not shout when the students laugh; - If we talk about both the subject of the lesson and funny staff; -If the classes were carried out together with other classes; - Impartial –At the outside and with pauses; - Freely; - Psychology, astronomy, logic classes; - The positive feedback from the teacher's point of view; 4- If the teachers were smiling at the lessons; - Eliminate tensions with new technologies; - If the relationship between teachers and students in the lessons is sincere |

**Schedule 2.** As a result of my survey with 397 (7-8-9 grade) pupils in Azerbaijani schools, 230 students said that

they are listening to music while they are doing their homework

| | "What music are you listening to while reading??" | Number of students |
|---|---|---|
| 1 | Only mathematics | 48 |
| 2 | Only Azerbaijani language and literature | 22 |
| 3 | Only history | 11 |
| 4 | Only geography | 3 |
| 5 | Only biology | 7 |
| 6 | All subjects | 93 |
| 7 | Only music | 9 |
| 8 | Only physics | 9 |
| 9 | Only chemistry | 6 |
| 10 | Only drawing | 4 |
| 11 | Only English | 3 |
| 12 | While working on the tests | 6 |
| 13 | Sometimes | 5 |
| 14 | Russian | 1 |
| 15 | If I listen, it would be good but they do not allow me to do | 2 |
| 16 | Informatics | 1 |

Let's take a look at the physiological impact of music in parallel. Throughout history, numerous studies have been conducted by musicians, philosophers, psychologists and psychiatrists on human voices, nature sounds and music effects. The research on the effects of music on neurotransmitters, vital and immunoglobulins over the past 20-25 years once again demonstrates the benefits of music for human health. Over the past 10 years, research has simply demonstrated that music has a beneficial effect on the removal of psychological, neurological and other stress situations and so on.

Based on the philosophical and pedagogical views of ancient times, it is possible to form a healthy psychological identity, shaping a healthy musical taste, with a broad sense of the world, respecting the culture, respecting its own culture and national moral values. The researches confirm the importance of music education in modern education approaches and confirm the positive impact of music on the development of other intellectual fields. Taking into account that the common love of most students is music (Schedule 3), we can translate music into education, more precisely in teaching and learning strategies. That is, we can create a term of psycho-music effect in the perception process.

**Schedule 3.** As a result of my survey with 420 (7-8-9 grade) pupils in Azerbaijani schools, the processing of the answers to the questions "What would you name music?" showed that it would be advisable to incorporate music into the students' learning process.

| | What would you name the music? | Number of students |
|---|---|---|
| 1 | Life | 149 |
| 2 | Calming tool | 68 |
| 3 | Everything | 30 |
| 4 | Convenience | 33 |
| 5 | Entertainment | 18 |
| 6 | Dream | 26 |
| 7 | Feelings | 25 |
| 8 | Nothing | 21 |
| 9 | I listen to music on my leisure time | 12 |
| 10 | Soul | 37 |
| 11 | Cosmos | 1 |
| 12 | Interesting names for music | "Music is a train that gives the chance to travel into my dream world", "Music is something I cannot express with words, but when I listen to the music, I feel very peaceful", "Sometimes the closest thing to me when I am alone", "If there was not music, I could not feel |

| | | |
|---|---|---|
| | | better when I was sad", "For me, music is enthusiasm, inspiring voices and it creates competition ", "To dream, to avoid bad thoughts", "entertainment and a partner that you can share your problems", "For me, music is life itself, it tells story of my life", "My friend that calm me down when I am sad or anxious", "Music express feeling that human cannot tell with tongue", "It inspires. If there was not music, I could not be positive", "It directs me", "Get rid of the environment that I am in", "freedom", "Life style", "Consolation", "Motivation",<br><br>"Without music, life would be so boring"<br><br>"Nutrition of the soul. My dream, my ideal"<br><br>"It brings my life before my eyes when I listen to music" "Vision of the future"<br><br>"Music is very important such as water and air"<br><br>"Joy of life",<br><br>"Like a copybook, I've written some people in that copybook"<br><br>"Hope, part of a small piece of poetry that commemorates my life", "Medication to relieve distress"<br><br>"It is my best friend. Someone who entertains me, and sometimes makes me cry"<br><br>"Music distracts people from happening around them" |

**Research Aim**

In our research, we have explored the psychological effects of music on the motivation and training of adolescents. It is not accidental that we study the teenage students. This period is considered a critical transitional period in which positive or negative tendencies can arise. More attention should be paid in this period. Music is one of the tools that can be most effective for children of this age. One of the main goals of research in the field of education should be to determine the positive impact of music on the learning motives, the aesthetic education of teens and the formation of their national spirit in them, to develop them with psychological and pedagogical methods.

Nowadays the human factor is the main factor and forming and shaping the younger generation with scientific outlook, high moral qualities, harmonious development, socially active personality that combines spiritual wealth, moral purity and physical perfection is the most important urgent task before the education system. Creating a profound and deep knowledge of the basics of science, the ability to use that knowledge and apply them to practice is one of the most serious requirements of modern times.

Research on contemporary educational approaches today confirms that students' music education is very important. Education is preferable to academic knowledge, which focuses more on the left hemisphere of the brain; the right hemisphere activity is taken to the second plan. The use of music is now widely used worldwide in education, training and medicine. In 1977, the American Music and Therapy Association adopted music treatment as a science

World famous violinist and philanthropist Menuhin noted that the things that "Things that realized by ears in our brains and life, nothing can do"

5. Research Methods. During the research, observation, interview, survey questionnaires, scientific analysis of data, analysis of operational outcomes, expert evaluations were used.

6. Research Results. Our reviews and studies have shown that the music school curriculum of the modern school should be written with psychologist and music therapists along with the musicians. Music lessons should also be therapeutic. The result of the research is that although the teenagers call music "Life", they lost their tastes through shallow, non-professional music. High quality, classic, national, and highly professional music can help to restore the musical taste of students with aesthetic, value, morality, love code. The training results obtained with such music can also be greatly improved. The teenagers have motivations for training and good future, in order to get the results; they simply need to prepare the learning environment and teachers to suit their needs. The impact of music on students can be grouped as follows: has a positive impact on career preparation, is used as an interesting hobby; encouraging success, focusing on more productive

activities, making the day even more enjoyable, informative, and exciting; encourage joint activities; supports efficient lifestyle in community and school life; enriches the lifestyle, ensures that the national cultural heritage is understood; to encourage to dream and to create innovation; contribute to experience and creativity; music creates sensitivity; make the one disciplined and determined; builds confidence in success; it creates an extraordinary - telepathic effect on students; Music lessons have a positive impact on the students' self-consciousness

**Conclusion**

By making sense, we can create a psycho-music term in the perception process. Healthy education means students wishing to go to school every morning, waiting for each subject with special interest, scientifically compelled, dreams, believing in their education and success. If the students are happy, the education that makes students happy makes the teachers and parents happy two times more. A large part of the content of modern education is aimed at forming technical skills and abilities in students. Lessons that provide the development of imagination and creativity are usually regarded as "second-class" lessons. It should be ensured that classes such as music, painting, handicrafts, design, drama, dance, and sports are in the forefront of the curriculum primarily in the elementary and secondary education levels, providing students with body movements, art and creative motives to get a better understanding of themselves and the outside world. The experience of many countries like the United States, Japan and Korea also confirms this fact.

The opinions of neuropathologists, physiologists, psychologists and other related persons should be taken into account when designing the content of modern education and curriculum development and their mutual cooperation should be ensured. Content and training strategies should be adapted to the potential of the students. One of the most important factors is that, the participation of students in the programs compiled to ensure the future developments of students should be maintained at any and all levels, and students' wishes and desires should be taken into account. All of these factors create a basis for the motivation of the students to increase their motivation and to increase their training interests and will ensure the effectiveness and quality of the training process will be substantially increased.

8. References


1. Bayramov Ə.S., Əlizadə Ə.Ə., Psixologiya, "Çinar-çap" Bakı:2006

2. Bəylərov E.B. Uşaqlarda istedadın müəyyənləşdirilməsi və inkişaf etdirilməsi. Bakı: Təhsil, 2008. 224 s.

3. Daniel J.Levitin "Müziğin etkisindeki beyin", Pegasus-2015

4. Gerard Ducourneau "Elements de musicotherapie"-2016

5. İsmail Hakkı Aydın "Beyin sizsiniz", Girdap-2018

6. Kenneth E. Brusica "Defining music therapy" – 2016

7. Mümin Sekman, Dr.Bahar Eriş "Çocuklar nasıl başarır?", ALFA Eğitim – 2017

8. Oliver Saks "Müzikofili", YKY – 2018

9. Sinan Canan "Değişen beynim", Tutukitap-2018

10. http://inf-math.azerbaijaniforum.com/t50-topic

11. https://www.mentalup.net/blog/coklu-zeka-kurami-ve-zeka-turleri

12. https://tr.wikipedia.org/wiki/%C3%87oklu_zek%C3%A2_teorisi

13. http://muzikegitimcileri.net/bilimsel/makale/A-Kocabas_1.html

14. http://otizmsenfonisi.blogspot.com/2011/01/muzik-egitiminin-coklu-zeka-alanlarna.html

# Problems Of The Formation Of Modern Paradigm Of Education

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## Abstract

The article presents a theoretical and methodological analysis of the problems of the formation of the modern educational paradigm. It is shown that the traditional paradigm, which is based on explanatory-illustrative type of education, still dominant in many countries, was scientifically substantiated in the mid-17th century by the works of the great Czech educator J.A. Comenius. In the middle of the 20th century, programmed education claimed the role of a new paradigm, and at the beginning of this century it claimed digital learning. The basis of theoretical ideas, they all put me the idea of learning as a mechanical device. The author of the article believes that the main resource for the emergence of a new educational parade is that improving the quality of education is the student's personal potential. The psycho-pedagogical theory of contextual education developed in the scientific school of the author of the article is the basis of the hard paradigm. Context education integrates three components: the theory of activity developed in the works of A.N. Leontiev and other Russian psychologists and teachers, a rich and diverse experience of pedagogical innovation, the meaning-forming category of "context". A description of the features and principles of contextual education is given.

*Keywords: new educational paradigm, explanatory-illustrative type of learning, programmed learning, digital learning, contextual education, principles of contextual education*

**Introduction**

In recent decades, throughout the world, philosophical, pedagogical and psychological literature has actively discussed the problem of the emergence of a new educational paradigm that adequately responds to the challenges of the late 20th - early 21st century: updating scientific information every 5-7 years and its rapid obsolescence , the emergence of new technologies in the workplace and in the education system, including the wide distribution of digital technologies for the production of goods and digital education, an orientation towards practice-oriented competence an approach, rather than mastering the fundamentals of science in a general education school and in the university education system, etc.

At the same time, the traditional educational paradigm still dominates in the education system at its various levels in many countries, the core of which is the explanatory-illustrative type of teaching, scientifically based in the mid-17th century by the great Czech educator Jan Amos Comenius. The theoretical analysis of his works shows that the ideal for the teacher is to consider the student as a kind of mechanical device, like a clock and any other machine.

The idea of considering the learner as a kind of mechanical device was taken as the basis for programmed training, which widely spread its influence throughout the world in the 1970s and 1980s, suggesting the teacher "leaving the stage" and replacing him with something primitive at that time, training device. Programmed learning did not become a new educational paradigm and went down in history. The role of the modern educational paradigm is claimed to be digital education based on the idea that the mechanisms of information processing by the human brain and computer are identical ("computer metaphor"). Digital learning also seeks to "remove from the stage" the teacher, the teacher, and replace it with a high-speed digital device.

The author of the article believes that the main resource for the emergence of a new educational parade is that improving the quality of education is the student's personal potential. The psycho-pedagogical theory of contextual education developed in the scientific school of the author of the article is the basis of the hard paradigm. Context education integrates three components: the theory of activity developed in the works of A.N. Leontiev and other Russian psychologists and teachers, a rich and diverse experience of pedagogical innovation, the meaning-forming category of "context". A description of the features and principles of contextual education is given.

The author of the article proposes a fundamentally different solution to the problem of the formation of a modern educational paradigm: to base it not on some kind of mechanical device, but on living human activity, to consider pedagogical technology as a practical project of living human activity, but to consider personal potential to be the main resource of becoming a modern educational paradigm human, including computer enhanced. This idea is realized in the theory of contextual education developed in the scientific school of the author of the article.

**Research Aim**

Through a theoretical-methodological and historical-pedagogical analysis to trace the dynamics of scientific ideas about the change of educational paradigms, starting with the paradigm of explanatory and illustrative type of training of the great Czech teacher Ya.A. Komensky (17th century) and ending with contextual education, developed in the scientific school of academician A.A. Verbitsky (Russia).

**Research Methods**

Theoretical, methodological, historical and pedagogical analysis of Russian and foreign studies on pedagogy and psychology, reflecting the processes of formation of a new educational paradigm; theoretical generalization of pedagogical innovations and the results of psychological and pedagogical research.

Paradigm, in Greek, is a sample, an initial theoretical representation, a model of problem statement and its solution, dominating in science and practice, in our case educational, during a certain historical period. The paradigm shift, writes T. Kuhn, marks the scientific revolution [1] and the corresponding changes in practice.

A major American psychologist J. Bruner wrote: "We know three main ways of teaching the younger generation: developing components of the skill component in the process of playing with higher primates, teaching in the context of the native peoples and abstract method of the school separated from direct practice" [2, p. 386] known as explanatory-illustrative or traditional type of education.

The traditional educational paradigm, which also dominated at the beginning of the 20th century, was scientifically substantiated in the middle of 17th century in the works of the great Czech educator J.A. Comenius. He wrote: "one must wish that the method of human education become mechanical, that is, prescribing everything so specifically that everything that will be taught, learned and done will not be unsuccessful, as it happens in a well-made watch, in a cart, ship, mill, and in any other vehicle designed for movement" become reliable, "if it is built mechanically, i.e., 1) of all the accessories necessary for this, 2) mutually subordinate one to the other and 3) connected with such strong adhesion that during the movement of one everything starts to move" [3, p. 179].

Thus, although Y.A. Comenius stressed that man is the most complex being, the student really appears in his system as a kind of "feeling machine", actually a simple system, influencing which you can, as in the case of any mechanical device, get the desired results. The only thing is a reasonable distribution of content, time, place and method.

Y.A. Comenius also wrote: it is unwise to communicate to students something contradictory, raising doubts about what should be studied; you need to give them only those books that are accepted in the appropriate class and are sources of wisdom, virtue and piety [4]. And so far, children's initiative and creativity does not find pedagogical support in traditional teaching. But we know that all thinking begins with a doubt about the truth of the known. The traditional explanatory-illustrative type of education is based on ingeniously simple principles: conscientiousness, clarity, from simple to complex, consistency and systematic presentation of content, strength of learning, etc. and with equally well-known "maxims": "repetition is the mother of learning" "The new is well forgotten old", "there is nothing in thinking that was not in perception before", etc. If you do not take into account all kinds of innovations, then these principles are still relevant today.

Such an idea of the mechanisms of assimilation of social experience dominates, up to the present, in the minds of teachers and instructors, focusing on the transfer and memorization by students of the finished, cleared of all uncertainty and probabilistic nature of educational information. It carries knowledge of the past, of past situations of theoretical or practical action ("school of

memory"), and not of the future. And this is in the conditions of the rapid change of production technologies and social practice of society, the rapid update of information in the world every 5-7 years.

Historical merit Y.A. Comenius is that, relying on the innovative experience of that time, on all the then knowledge and understanding of the patterns by which any natural object lives and develops (the principle of nature conformity), he proposed an extremely simple, to put it in modern language, pedagogical technology which "all can be taught to all."

Educational practice has retained from the whole humanistically oriented, pansophical system Y.A. Komensky is only the technological, which is necessary for a clear organization of the educational process on the technocratic type. Subsequent generations of the largest teachers and pedagogical psychologists actually worked, and still work within the framework of the classical paradigm justified by them.

The emergence of explanatory-illustrative type of training was a huge step forward in the development of civilization. He still allows people in a relatively short time to learn to master the "fundamentals of science" and some practical skills. However, this type of training from the very beginning caused the separation of information from knowledge, sense from meaning, learning from practice, learning from upbringing, and in the modern post-industrial era has exhausted its possibilities.

It should be borne in mind that the change of the traditional educational paradigm, the dominant explanatory-illustrative type of education for the modern, takes a long period of history. Attempts to move to some other type were undertaken in the 60-70s of the last century in the United States. We are talking about programmed training, which literally embraced both the United States and the entire civilized world. The scientific basis for such training was the psychology of behaviorism, which asserted that the human brain is a "black box", the mechanism of which is unknown, the basic unit of instruction is the "stimulus-response" bundle, and the teacher can be replaced by a technical one, at that time rather primitive, teaching device [5].

But programmed learning is fast a thing of the past. It was revived in a different quality - in the modern version of digital education. His followers come from the so-called "computer metaphor": the human brain is a device for processing information, and the mechanisms of its operation are similar to the mechanisms of computer operation. 3.5 centuries after Y.A. Comenius human beings is again regarded as a kind of mechanical device!

In my opinion, the emergence of digital learning and the literal "intoxication" of them, including in Russia, is due to three interrelated factors: 1) the achievements of cognitive sciences; 2) the success of digital technology, which has a tremendous speed of information processing; 3) pressure of business: digital equipment needs to be sold, and education is the inexhaustible market of this technology.

We can name a whole range of problems and risks of total digitalization of learing due to which it will not become a new educational paradigm: 1) there is no pedagogical theory of digitization of education in the world on which teachers could rely in its implementation; 2) information and knowledge are different nouns: information is a semiotic system, a carrier of meanings (signs of language, texts, speech sounds, etc.), and knowledge is a substructure of a personality, something subjective, personal meanings that can be different for different people in the perception of the same values; 3) there is a risk of degradation of words, and with it thinking, because it is known to be performed in speech; 4) due to the transition to online education and minimization of the teaching staff, the educational function of personal development is lost, which, along with training, constitutes its second organic side; 5) in the absence of the theory of digital learning, its integration into traditional education only reinforces the shortcomings of both.

We can single out one main reason: 1) the need to change the explain-illustrative type of learning, which no longer meets the challenges of time, with some kind of more progressive; 2) programmed learning failures; 3) the inability of digital learning to improve the quality of education, to become a new productive educational paradigm. The main reason is that all of them, by "imitating" the natural sciences, put in the basis of their scientific ideas about the learning process the idea of a child, a student, or an adult student – as a kind of mechanical device.

The main reserve for improving the quality of education lies not in the technical means, but in the student's personal potential, besides possessing the enormous capabilities of these means. After all, a person is an integral unity of the spirit (basic personal values and principles), the soul (all mental processes) and the body, carrying out programs set by the spirit and psyche. And the mental is the unity of the biological and social, conscious and unconscious, intellectual and emotional, rational and irrational.

At the present stage of the development of sciences, including the human sciences, production technologies, culture (intellectual, technological, social, spiritual) and education itself, there is a need to move to a practice-oriented type of continuing education based on the fundamental content of science and on the implementation of inexhaustible human capabilities as a subject of general and professional development, including the use of digital didactic means. This is, in my opinion, the essence of the new educational paradigm, which is at the stage of its formation. The main differences between traditional and new educational paradigms are given in Table 1
Table 1

The main differences between traditional and new educational paradigms

| *Traditional paradigm* | *New paradigm* |
|---|---|
| 1. The main mission of education: preparing the younger generation for life and work | 1. The main mission of education: ensuring the conditions of self-determination and self-realization of the individual |
| 2. Human being is a simple system | 2. Human being is a very a very complex system |
| 3. Education - transfer to a learter, a student of known samples of knowledge, abilities, skills | 3. Education - the creation by man of an image of the world in himself through active self-reliance in the world of intellectual, technological, social and spiritual culture |
| 4. Knowledge - from the past ("school of memory"), the student "turned to the past", to the "storeroom of knowledge" | 4. Knowledge - from the future (“school of thinking”), student “facing the future”, probabilistic problem situations |
| 5. Learner, student - the object of pedagogical influence | 5. Learner, student - the subject of cognitive and future social and professional activities |
| 6. The subject-object, monologue relations of the teacher and the student | 6. Subject-subject, dialogical relations of the teacher and the student |
| 7. “Response”, reproductive student activity | 7. Active, creative activity of the student |

There are several sources of the new ones that determine the transition to a new educational paradigm: 1) the diverse empirical experience of pedagogical innovations accumulated over a long period of time, contrary to the dominant educational paradigm; 2) new pedagogical (psycho-pedagogical) models offered by research laboratories; 3) a developed psychological and pedagogical theory, summarizing the results of the first two sources; 4) decisions of education authorities. The main sources are innovative experience and a developed pedagogical or psycho-pedagogical theory, which generalizes this experience and makes it scientific fact. Pedagogical or psycho-pedagogical theory as a conceptual basis of a new type of education at all levels must meet a number of requirements: to be recognized in science and practice; able to include the personal potential of each student; have the necessary power in understanding a wide range of empirical innovations; ensure the unity of training and upbringing; to serve as the basis for making project decisions on the implementation of the reform; be technologically advanced; serve as the basis for the development of sets of activity modules; to be understandable and easily learned by practicing teachers.

The psycho-pedagogical theory of contextual education that has been developed for about 40 years in our scientific school under the guidance of the author of this article meets all these requirements. For many years, research and development has been conducted in the field of vocational education [6], [7]. In recent years, research has also been conducted on the problems of contextual education in secondary schools as an organic part of the system of continuing education [8]. Briefly describe the essence of this theory on the material of higher vocational education.

A.A. Verbitskiy singled out three sources the integrative unity of which is based on the idea, theory and technology of contextual education: 1) the theory of activity as the basis for a person’s mastering social experience ([9] and others); 2) a theoretical generalization from the standpoint of this theory of diverse innovative experience and results of laboratory research; 3) the psychological category "context" in its semantic influence on the process and results of educational activities of its subjects [10]. Briefly describe these sources.

Theory of activity as a basis for the assimilation of social experience by a person. In accordance with this theory, the assimilation of the content of education is carried out not by simply transmitting information to the student, but in the process of his own cognitive activity aimed at objects and phenomena of the world around him and at himself. The content of the activity is the expedient change and transformation of this world on the basis of the assimilation and development of the existing forms of culture and thereby the development of oneself as an personality and individuality.

At the same time, in order to form the ability to perform any activity, it is necessary to carry out practical activities adequate to that which objectively exists in a social and professional culture. From this point of view, the goal of the student is not only to master the knowledge, skills, abilities, competencies - they are necessary, but not sufficient - but to master the holistic professional activities of a specialist (bachelor, master).

Activity has a ring structure, all links of which are interconnected (Fig. 1). Different types of activities differ in motive (cognitive, practical, etc.), an action or deed is its purpose, and the conditions for performing an action define the operations through which this action is performed.

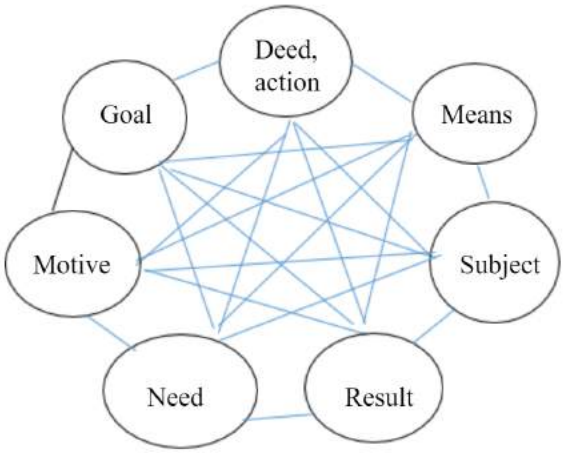


Fig. 1. The general psychological structure of human activity, according to A.A. Verbitsky

The figure shows that all structural units of the activities are interrelated, so you can enter into it from any of them, changing all activities in the desired teacher or learning direction. This is a systemic effect: a change in one structural link of activity causes shifts in all of its other links. Thus, it becomes possible to transform cognitive activity into a professional one.

Such a process is impossible in the conditions of explain-illustrative, programmed or digital learning, where the student is in the "virtual space", because the units in them are such abstractions as, respectively, "association-reflex", "stimulus-reaction", bits or bytes information. Forms, methods and conditions of students' education are also not at all like the real forms of professional activity of specialists. As a result, a university graduate spends 3-5 years to adapt to a profession, or does not go to work on a university profile at all.

From the standpoint of the theory of activity, the main contradiction is traditional. Programmed or digital learning is that being in a kind of virtual educational space, performing cognitive activity, the subject of which is abstract information, the student must master a fundamentally different in goals, conditions, content, forms, methods, means, process and result of professional activity . And to make it in the marked conditions is impossible. Learning to swim, a person cannot learn to fly.

The main contradiction of traditional education causes many specific contradictions:

• educational activity involves a developed cognitive motivation, and labor- professional;

• the subject of teaching is abstract information, and labor - natural, biological, social objects;

• the content of training is "scattered" in many disciplines, and in work it is applied in-system ;

• in training students solve standard problems, and in life and work there are many problem situations;

• training involves mainly the processes of attention, perception and memory of a person ("school of memory"), and in life and work – the whole personality, the triunity of body, soul and spirit ("school of thought and active social action and deed");

• the student takes a "responsive" position, but in life and in production, activity and initiative are required of him;

• the student accumulates static educational information, and in work it dynamically unfolds in time and space;

• educational activities are organized in some forms, and practical - in others;

• in the training, the principle of individualization operates, and in labor, the joint activity of all participants in the production process;

• "abstract school methods" leads to the separation of training and cultivation of personality, , bringing the latter out of the student audience.

As we can see, the student's activity in terms of goals, content, forms and conditions is "not equal" to the activity of a specialist, not adequate to what he does in production, the service sector, and in the process of social practice in general. But according to one of the basic tenets of the theory of

activity, in order to master a particular activity, it is necessary to carry out an activity adequate to that embodied in a given object or phenomenon in the systems that they form [59].

How to move from teaching to work, dealing not with professional realities, but with their informational, symbolic models, not with the forms of the activities of specialists, but with training forms?

The main idea of contextual education is to impose the assimilation by students of theoretical and other knowledge on the “gutter” of their professional activities that they are assimilating and thereby resolve the noted contradictions. Definition: contextual education is one in which the subject-technological (subject context), social and moral content (social and moral contexts) of the student’s future professional activity are dynamically modeled in the language of science and with the help of innovative and traditional pedagogical technologies. It is about ensuring the movement of a student’s educational activity with all its structural components from the educational one itself through basic and intermediate forms to real professional activity through dynamic modeling of its subject-technological social and moral content.

Figuratively speaking, it is necessary to provide psychological and pedagogical, didactic and methodological conditions for the transformation of the “larvae” of a student into a “butterfly” of a specialist (bachelor, master) and thus of abstract information into concrete knowledge.

The formation and development of a student's ability to perform a holistic professional activity as a future specialist constitutes the main goal of contextual education. This main goal involves many private, but not less important goals, the achievement of which sets the dynamics for the formation of general cultural, social and professional competencies themselves.

The content of contextual education as a unity of training and cultivation of personality is selected from three sources: 1) the adapted content of the sciences; 2) the content of the upcoming professional activity of the student, presented in the form of activity models - a description of the system of basic professional functions, the specialist solves the problems and tasks that make up the subject-technological content of competences; 3) moral and ethical requirements for a person, adopte The content and logic of professional activity, the modeling of its subject and social contexts add to the content of education a number of necessary properties, which, as it were, are outlined by the tradition of information transfer:

• systematic and interdisciplinary knowledge;

• the possibility of a spatial-temporal sweep of the content (usually it is given in statics); deploying his script plan;

• time parameter "past-present-future";

• role-playing “instrumentation” of the content of professional actions and actions;

• job functions and responsibilities;

• official and personal interests of future specialists;

• moral norms, rules, requirements, sociocultural bases of the specialist’s activities.d in society and this professional community.

The content and logic of professional activity, the modeling of its subject and social contexts add to the content of education a number of necessary properties, which, as it were, are outlined by the tradition of information transfer:

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• job functions and responsibilities;

• official and personal interests of future specialists;

• moral norms, rules, requirements, sociocultural bases of the specialist’s activities.

The information content of contextual education is designed taking into account a number of requirements: semiotic - for the organization of sign information; psychological-didactic, determining the convenience of working with educational material and the adequacy of its assimilation; scientific - an academic subject should systematically reflect the foundation of science; professional - in the training models the content of the whole professional activity or its large fragments should be presented.

Generalization from the standpoint of the theory of the activities of diverse innovative experience and the results of laboratory research. Pedagogical and psychological innovations are well-known: technologies of programmed learning, digital learning, problem-based learning,

simulation-game forms and methods (role-playing, business games, etc.), new forms of lectures (problem, lectures together, with planned mistakes, and others), seminars-discussions "method of projects", research work of students, various kinds of practice, etc.

Such innovations have been accumulated for a long time, especially in the last half century; Modern education all over the world is literally “pregnant” by them. They “knock” on the doors of school classes and student audiences, and sometimes get there, but it seems to be illegal, since they are not provided for in curricula and programs. And this is natural for two reasons: 1) innovations contradict the principles and conditions of traditional education; 2) they are not comprehended from the standpoint of some generally accepted pedagogical or psychological-pedagogical theory; therefore, they do not constitute a system and cannot ensure the formation of a modern educational paradigm or improve the quality of education at all its levels.

Widely “fling open the doors” to all these innovations, the presence of which is the second important condition for the transition to a new educational paradigm, to a new type of education is capable of a recognized psychological and pedagogical theory, which can be the context education theory.

_____The semantic-forming category “context” is the third important condition for the realization of contextual education and together with it the formation of a new educational paradigm. The semantic category "context" is the third important condition for the implementation of contextual education and with it the formation of a new educational paradigm. Context is the system of internal and external conditions of his life, behavior and activity reflected in the mind and psyche of a person, which affects the perception, understanding and transformation of a particular situation, gives meaning to this situation as a whole and its components. Accordingly, the internal context is the individual psychological characteristics, knowledge and experience of a person; external - the subject, socio-cultural, spatial-temporal and other characteristics of the situation in which it operates are reflected in the mind and psyche [6]. [10].

The main principles of contextual education are:

• the principle of pedagogical and psycho-pedagogical support of personal-semantic inclusion of the student in educational activities;

• the principle of unity of training and education of the individual student in one stream of his educational activities.

• the principle of consistent modeling in the educational activities of students of holistic content, forms and conditions of the professional activities of specialists;

• the principle of problematic learning content and its deployment process in the educational process;

• the principle of the adequacy of the forms of organizing students' educational activities to the goals and content of education

• the principle of the leading role of joint activities, interpersonal interaction and dialogic communication of the subjects of the educational process (teacher and students, students among themselves);

• The principle of pedagogically sound combination of new and traditional educational technologies;

• the principle of taking into account the “counter” semantic influence on the incoming information of cross-cultural peculiarities of students established in his life and education: psychological, national-cultural, moral, religious, gender, etc.

The process of contextual education is a dynamic change of three educational models: semiotic, imitational and social. The semiotic model is verbal or written texts (lecture material, traditional tasks, tasks, etc.) intended for individual learning; student work unit - speech action. Imitation model: situations reflecting professional activities and involving the practical use of information; the unit of work of the student is the objective action. Social: professional situations involving the assimilation of their content through dialogue and interaction between teachers and students, students between themselves in the language of science, forming the technological, social and moral competences of the future specialist; student work unit - deed.

**Research Results**

The study revealed the historical and pedagogical dynamics of scientific ideas about the laws and processes of changing educational paradigms. The factors that determine the corresponding types of training and education are substantiated.Bibliography.

**Conclusion**

Understanding the patterns of changing educational paradigms and the factors that make it necessary, as well as understanding the essence of new types of education and training, contribute to making adequate decisions on

modernization and reform of the education system at all levels.

**References**


1.Kun T.S. The Structure of Scientific Revolutions. M. ACT, 2003.

2. Bruner J. Psychology of Knowledge. –M. Progress, 1976.

3. Komensky Y.A. Exit from the School Labyrinths, or the Didactic Machine / Selected Pedagogical works: In 2 volumes. T. 2.– M .: Pedagogy, 1982.

4. Komensky Ya.A. Great Didactics / Selected Pedagogical Works: In 2 tons. T. 1 M .: Pedagogy, 1982.

5. B. Skinner. On the other Side of Freedom and Dignity. M: Ed. Operant, 2015.

6. Verbitsky A.A. Theory and Technology of Contextual Education. M.PGU, 2017.

7. Pedagogy and Psychology of Contextual Education: a Collective Monograph / under scientific. ed. Verbitsky A.A.– M .: SPb: Nestor-History, 2018.

8. Verbitsky A.A., Rybakina N.A. Methodological Bases for the Implementation of the new Educational Paradigm // Pedagogy, 2014, No. 2 ..– P. 3-14,

9. Leontiev A.N. Activity. Consciousness. Personality. - M .: Meaning: Academy, 2005.

10. Verbitsky

y A.A., Kalashnikov V.G. Category "Context" in Psychology and Pedagogy. M .: Logos, 2010.


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# Some Aspects Of Optimization Of Teaching Pedagogic At Universities And Colleges

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## Abstract

In the context of reforming the education system of the Republic of Azerbaijan, higher educational system must be able to respond professionally and make changes to the new emerging education paradigm.The problems of optimization the teaching of academic disciplines at the current stage of education is the object of research for many researchers.Optimization of the learning process is one of the main factors for improving the effectiveness of learning with an emphasis on the development of students' individuality.

The article explores the issues of optimization of teaching pedagogy in higher schools. It analyzes the content of the subject matter, methods, forms and object of teaching. The article focuses of the complexity of the optimization process. This article focuses on the role of personal qualities of the teacher in the system of educational process optimization. The principle of optimization of educational process with the features of its implementation are also covered in this article.

*Keywords: pedagogics, training, growth, intensive, extensive, criteria, optimization, science, innovations, the principles of optimization*

***Research aim**:*Investigations of optimizations problems of teaching pedagogy in higher educational institutions and colleges.

***Research methods***: Theoretical analysis of literature, observations

***Introduction:*** Questions of teaching pedagogy are of a current interest in the system of training qualified pedagogical personnel.With the development of sciences, new approaches, methods of teaching serve to enrich the teaching methods of all academic disciplines, including pedagogy.Studying and systematizing the practice of developing teaching methods of training courses is an important factor influencing knowledge assimilation and the formation of skills and abilities of professional activity.Another important factor of the acquisition of knowledge and skills is the process of optimization of the taught subjects.Optimizing the teaching of pedagogy in higher educational institutions is an important factor for improving the effectiveness of teaching.

Pedagogy being a theoretical and applied science consists of a number of divisions: general principles of pedagogics; didactics; study of education; schooling. Theoretical and applied matters of pedagogics are carried out in pedagogical processes. Pedagogical process is a dynamic system with its own structure and components. Its components such as purpose, content, activity and outcome constitute its system, i.e. training system. The structure of the pedagogical system consists of a set of closely interrelated elements:

- students;
- educators;
- main objectives of training and education;
- content of training and education;

- tasks of training and education;
- plan of training and education;
- technical means of training;
- forms of management of training and education;
- main tasks of teaching, training and educational process;
- technology of training and educational process;
- analysis and evaluation of the outcomes of training and educational process.

Pedagogical system is a complex of organizational and technological support for achieving a set goal. Possibilities of the pedagogical system are identified by the quality depending on management. Productivity of training and education process is based on the continuous improvement of the pedagogical system and its compliance with modern requirements.

Pedagogical system is improved in 2 ways: intensively and extensively. The intensive way is more efficient were the development is achieved at the cost of internal reserves without extra costs on investments, while the extensive way requires additional resources, new means, equipment, technologies and finance to develop the pedagogical system.

Hence, quantitative factors do not grow intensively, and even slightly reduce, but quality improves. Meanwhile,quantitative factors grow in the pedagogical process within extensive development and quality is expected to be achieved. (1 p.234).

Development of the pedagogical process in the intensive way requires innovations. Contradictory issues in pedagogics demonstrate necessity of innovations, as well. The main problems of innovations are: 1) strengthening the motivation of training and educational activities,developing students' interest to learning and reading; 2)increasing the scope of the material learned; 3) ensuring more effective transfer of knowledge, increasing efficiency of learning; 4) eliminating time loss and so on. From this perspective, optimization of education, training and teaching processes is an innovation related to the pedagogical system. Optimization (lat.optimus- the best) is selection and implementation of the best available option. Theoretical aspect of optimization consists of operations such as consideration, comparison, and differentiation of synonymous options while its practical aspect is organizing the pedagogical system according to the option with selected innovation, achieving success by solving tasks that are in line with set goals.

According to Y.B.Babanskiy optimization is a purposeful approach to training process. In this approach principles of training, features of a studied subject, a complex of forms and methods, features and capabilities of a class are studied and analyzed in a systematized manner and the best option of building a science-based training process is selected (3).

Q.A.Ilyina holds that optimization is the degree of compliance of an organized system withset goals. She notes that optimization achieved ina certain circumstance may not work in different circumstances. (4, p. 16-17).

Options of achieving the goals of training, education, teaching in the pedagogical system are numerous. Meanwhile under certain conditions the best of the options is implemented. Selection of the best option and its application in the pedagogical system is the main objective of optimization. It is necessary to compare the possible options with high achievements,selecting and evaluating the most effective one. The selected option should ensure that the goal set out in the pedagogical system is implemented.

Criteria, features and indicators should be selected for solution of optimization tasks. From a logical point of view, it is important to have one factor in a criterion.

Criteria for the optimization of teaching of pedagogics are taken as a whole. The cause-and-effect relationships of the processes implemented in the pedagogical system are closely interrelated.

Training and education are considered to be optimized when students and educators are not overloaded in the pedagogical process, and use less time and material to achieve maximum results. Experience shows that excessive loading of students and educators reduces their working ability and adversely affects their health.

In the pedagogical literature two factors related to the optimization of the teaching and education process are taken as the main criteria. The first is achieving the maximum possible outcomes in the development of cognitive activity of students under a certain circumstance, and the second is adapting the scope of given knowledge to the set identified norms and times. According to Y.B.Babanskiy the criteria for the optimization of training are as follows:

- the level of success and education in training according to the real learning opportunities of students;
- adherence to time limits by educators and students (2.10-10-11).

The systematic approach in education is the methodological basis of optimization. All components, common factors of the pedagogical process are taken as a whole for optimization. Although optimization provides for adapting the pedagogical process to present situation and circumstance, it requires the creation of a new circumstance which would govern activities. Activities of students and educators consist of the following successive levels: inadequate, crisis, adequate, optimal. Determining and achieving the optimal level is one of key issues.

To achieve this an educator should acquire teaching skills and knowledge, common factors and principles of teaching, techniques of organizing collective, group and individual activities and be able to carry out the teaching, educating, and developing tasks of the training as a whole. It is by realizing all this, taking them all as a whole, analyzing the whole system and its individual elements that an optimal option can be identified. It is also important to study and refer to the best practices of leading, innovative educators in achieving the optimization.

It is important for optimization of training that an educator has logical, critical and creative thinking. The following personal qualities of the educator also play an important role in this process:

- Demonstration of moral and spiritual values;
- Ethical behavior with students;
- Ability to adhere to norms while taking decisions and acting;
- Social skills, ability to demonstrate pedagogical ethics, etc. (1.p.236)

It is important that optimization techniques of teaching and learning process are taught to students.The optimal organization of the teaching process is one of the basic principles of training. It is fully linked to the content of training, with the law of conditioning the method, means and forms of training. This principle comprises 4 main objectives:

The first objective is defining the optimal content of training. While determining the optimal content of pedagogics as a subject, first of all the number of academic hours required for teaching are taken into consideration. Repetition of materials should be avoided. Topical issues should be preferred. Documents related to the education, training and education such as the State Strategy for the Development of Education in the Republic of Azerbaijan, the Framework Curriculum of Universities and Colleges, the Law of the Republic of Azerbaijan on Education, teacher's ethics should be captured in the teaching material. Teaching of the main sections of the pedagogics should be continuously carried out. It is recommended that divisions be processed in the following sequence:

- Theoretical and methodological issues of pedagogics;
- Theory of education;
-Didactics: theory of education and training;
- School organization and management.

These sections are broken down into several subgroups which in turn are divided into topics. Unimportant, outdated topics which are not based on cognitive activity and do not conform to interactivity and integration should not be captured in the context.

The second objective is complex approach to training goals (education, teaching and development). The goals of the training should be taken as a whole and their implementation should be reflected in content, technology and evaluation. All three goals are taken into account while determining the content. The educating goal is followed by those teaching and developing.

These three goals are taken as a whole in various divisions of the pedagogics. Despite the separation of the sections of the materials such as the theory of didactics and education, the solution of didactic issues should serve to educating students and developing their knowledge. Teaching of the theory of education should also be teaching and directed to the development of knowledge. The three main goals of the training should be carried out in the relevant sections.

The third objective is selecting and applying the optimal means, methods and forms through the purpose and content of the training (lesson).

Optimality should be reflected in the purpose of pedagogics. The purpose of lesson should be rapid teaching of basic issues within less time and means.

Classes should be optimized, and training aids should be used effectively. Implementation of optimally effective methods should be taken into account. Teaching more material within less time should be ensured by using interactive lectures in teaching pedagogics.

In the workshop sessions it is possible to perform the optimization using interactive teaching methods, especially such as brainstorming, research, presentation, observation, discussion, project, didactic games. The mechanism of methods is delivered to the students in theoretical form during lectures on pedagogics, and application of the methods are practically carried out at workshops. Thus, one or more methods are applied at each workshop.

The forms of school organization and management,same as teaching methods, are taught to students theoretically at lectures and practically at workshops. Also, those are demonstrated to students by using individual, group, couples and collective forms of work at workshops. The structure of lesson is taught to students as per stages by arranging various types of classes like repetition, summarizing, non-standard, class excursion, observation, practice, laboratory work and so on.

Suchorganization and management of the teaching of pedagogics ensure its optimization, have a positive impact on the cognitive activity of students by making a lesson an interesting and attractive activity.

The fourth objective is properly analyzing and evaluating results from optimization perspective. The learning outcomes that students will acquire in teaching pedagogics

should be determined in advance. Students' knowledge and skills should be assessed according to criteria. While determining the outcome of training, the purpose and content should be optimized. Optimization should also be ensured when setting the criteria for evaluating the knowledge. Methods and tools should be selected so that more students can be assessed for knowledge and skills within less time. Creating such optimal environment in pedagogics classes ensures high results in training. Students gain access to pedagogical knowledge and skills easily.

Peculiar features of the 21st century, especially rapid development of science and technology, flow of information, innovations in education, psycho-social development of youth require optimization of educational and teaching at universities and colleges, as well as,secondary schools.

***Research results:***

- The analysis of the ways of intensive and extensive development of pedagogical systems has been carried out.
- the problems of innovation in the process of teaching pedagogy were revealed.
- A theoretical analysis of the tasks of optimization pedagogical process has been carried out.
- The conditions and ways of optimization the teaching pedagogy in higher educational institutions were identified and described.

***Conclusions:***

Based on the provided observations and analysis of the tasks of optimization of the pedagogical process, the possibilities and ways of optimization the teaching of pedagogy in higher schools were identified.

***References***:


1. Ibrahimov F.N., Huseynzadeh R.L. Pedagogics. Textbook. 2 volumes. I volume, Baku, 2013.
2. BabanskiyY.K. On didactic principles of teaching improvement / Popular Education. 1986.
3. BabanskiyY.K. Optimization of teaching process. 1977.
4. Ilyina T.A. Structural and systematic approach to organization of teaching. Editions 1,2,3. 1972.
5. Jabrayilov I.H. Scientific-theoretical problems of modernization of education. Baku, 2015.
6. Ahmedov H.H.Pedagogics. Textbook. Baku, 2013.

# Actual Problems in Teaching Biology

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## Abstract

The article presents some of the most current issues of modern teaching methods in biology and some methodological recommendations for their elimination. The main objective of our education is to educate young people as a person who can perceive life and self-understanding. In the implementation of this function, the role of biology and, in general, the role of teachers in the community are great. The introduction of biological knowledge to children of our future, as well as the high level of biological education is one of the priorities. If we fulfill our commitments as teachers, the quality of our education will be great. The teacher educates the nation tomorrow. The nation starts from school, teacher.

*Keywords: modern education concept, teaching methodology of biology, student identity, creative thinking, integration, teacher, professionalism, pedagogical innovations*

**Introduction**

Like many natural sciences, the teaching of biology has also started in secondary schools in the twentieth century. That is why it is called the 20th century biology century. Although the development history of biological science coincides with ancient times, the development of its teaching method has been delayed. Biology teaching methodology is most relevant to biological science. However, his philosophy, art, didactics, literature, logic, education theory, and nowadays are linked to curriculum reform. The understanding of the environment, and the mutual relationship between general and specificity in natural and social existence, reflect the philosophical science of the teaching methodology of biology. The methodology of philosophy is considered to be fundamental in teaching modern methods of teaching biology. Didactics of biology teaching methodology are their common research. At present, the teaching methodology of biology is also linked to curriculum reform. Because biology courses in general education schools are taught based on interactive teaching methods and pedagogical innovations. The teaching method of biology is divided into specific methodological areas such as life skills, methods of teaching plants, zoology, human and general biology courses, and builds a close relationship between these areas. The teaching method of biology is gaining more accomplishments than it is in relation to life, with other sciences, and successfully carries out the teaching of the basics of biological science to pupils.

Education, as one of the most unique and topical issues in the global world, plays a crucial role in the development of society, with its accomplishments always highlighting the prospect of civilized personality development. Let's recall some of the views of our great leader, our late president Heydar Aliyev about education: "Education is a sacred area." Because he has the potential to prepare children and young people for the future, a true citizen, a high-level specialist. It is therefore important to constantly upgrade it and upgrade it to meet the requirements and standards of the modern era. As the modern-day Azerbaijan develops, development in the field of education, as well as in all areas, is noticeable. Azerbaijan has always been proud of its scientific potential. Today, the establishment of an independent civil society in Azerbaijan goes on the rising line.

All of this creates a serious change in the world view of people. Let's remember the wise words of our great leader Heydar Aliyev: Every innovation in the education system should be evolved, not revolutionary.

The main task of general education schools is to train young people as an identity that can be understood. General education plays a special role in fulfilling this task. Biology is one of those subjects that speaks about living things, and gives students the opportunity to study the structure and vitality of the human body, which is the essence of living things, their origin, structure, spreading, development, protection, and, most importantly, biosocial existence. It provides the necessary knowledge, skills and practical habits for the sustainable development and health of the person. Biology is closely related to other natural areas of nature. Physics, chemistry, mathematics, geography, and some of the laws of the environment can not comprehend the human life properly, so it refers to those subjects in the teaching of biology. Only in this case will the ground be perceived as a complete unit of the world. Understanding the biological and social significance of the student through the teaching of biology, the pupil is prepared for the health and well-being of his / her relatives.

Bioavailability of biological knowledge to children of our nation, tomorrow is one of the top priorities of biological education. From this point of view, the basic pedagogical requirements for the teaching of biology in our time include teaching students to think, developing intellectual abilities and cognitive interests, as well as developing logical and critical thinking, and gaining access to knowledge independently. The rise and further development of biological education to the world standards is the main goal and goal of the science of teaching biology. The implementation of this is largely dependent on the activities of educational staff, the attitude of teachers and educators to the work.

I would like to note that the first systematic education concept was developed by the great Czech pedagogue Yan Amos Komenski, who was the founder of pedagogy. The training process built within the concept of modern education emphasizes a number of topical issues facing the teaching methodology of biology. Let's look at some of them.

Firstly, the teaching of biology at secondary general education institutions should be organized so that the students develop creativity and emotional value. Because the development of creative thinking in modern times is one of the main factors influencing the formation of student identity. For this reason, every biology teacher should give more space to research, research and tasks that develop creative thinking. In one word, training should be organized so that students develop all three forms of thinking - logical, critical, and creative thinking. The organization of teaching with active learning methods high demands on the teacher's knowledge and skills. He must know perfectly what he teaches. The teacher should be able to penetrate into the inner person of the student before him, activate him in various ways, perform the functions of the organizer, the guide, the coaching staff in the learning process, and at the same time correct the mistakes. Students must adapt themselves to independent work and research. Teacher training should be organized so that students understand the importance of learning independently by the nature of emotionally-valued attitudes and knowledge of biological knowledge and skills. The development of logical thinking in learning the basics of life-processes, human health, ecology and genetics is one of the key issues.

For the development of thinking, the teacher should motivate, challenge, and challenge students in every aspect. Creative thinking is based on the free use of knowledge and skills acquired beforehand, the search for new ways to solve the problem, and solving different options. Expanding the cognitive activity of students means strengthening his thinking. In many ways, it is possible for students to read the subject in the textbook, to think about the information there, and to reach certain conclusions. Memory is one of the key factors that make life possible in the life of a person. If he does not, then there is no human being. The teacher should ask the students to put their knowledge into the form of a list, to record them correctly, and to make sure they are not forgotten.

Logical thinking is also based on memory and plays an important role in shaping man as an entity. Based on our experiences, our experiences, we compare these knowledge with our previous knowledge, and distinguish between similar and distinctive features. We also analyze and comment on the knowledge, and we are able to draw conclusions. The fulfillment of these operations is due to logical thinking. Critical thinking proves the idea that a person can get even better knowledge. A person who has developed a proper level of critical thinking is able to analyze and analyze every event and event in addition to his ability to analyze it. Creative thinking also takes memory, the memory of the brain, and gives life to the life of a person, a creativity, creation and creation. People with this kind of thinking are able to create their lives in a colorful way, and promote the development of society. The lessons should be used in such a way that they

can keep pupils' memory and minds constantly in development. The more the generalization of thinking, the quicker and simpler the main aspects of the perceived situations, the regular relationships and relationships between them. All this requires the teacher to be creative. I even complement my idea by the words of K.D.Ushinsky, a teacher: "As long as the teacher reads, learns, he lives, and when he ceases to read, the teaching is dying."

In the traditional learning process, the requirement for quick, easy, accurate mastering of the teaching material did not mean teachers or scholars. Developing thinking is an important component of the learning process, and each teacher is capable of working out the assignments for that purpose.

The active teaching methods of biology give the most effective results for the development of knowledge, skills and relationships for both students and teachers. Interactive training involves the interaction of pupils by enhancing the cognitive process. They do not passively pass the teacher's explanation, they become active participants in the educational process and the environment.

There is integration everywhere in society and in nature. As world unity creates, science must also be united and co-existed. The education of people who will be able to properly organize their lives in this world should be implemented in a world-related way. The well-known American theorist John Douy considers that the integration of subjects can be achieved through the search for science and life. It improves the integrated learning process, deepens mutual relationships and dependencies among subjects. With the help of integration, students understand the relationship between knowledge and use that knowledge in solving personal and social problems. Research shows that the brain has an in-depth understanding of its full knowledge, and keeps it for a long time. The goal of integration is that the child from the early years of learning must realize that the entire world of interaction is a complete one. The students then read well that the training is related to the issues they are interested or knowing. From this point of view, the structure of biological subject curriculum and the biological processes occurring in it, the connection between living things and the environment are considered to be important factors.

One of the most pressing problems of the teaching methodology of biology is that some teachers partially touch or maybe not touch on the issue of integration in teaching. It should be noted that integration is one of the modern requirements for the content of the training. The introduction of all three levels of integration takes place in the teaching of biology. Intentional integration means the systematization of the facts within the subject. The advantage of this form is that students have a deeper knowledge of the problem. Intrinsic integration is divided into two groups, one horizontally and horizontally. Horizon integration means the connection of different content standards within a single subject. For example, when teaching the subject of biosynthesis of proteins in class 9, the ATF, DNA, RNA structure and information about them are asked and contacted. Vertical integration involves the classification of standards in the classroom and is sometimes referred to as inter-class integration. When the "Mechanism of Protein Biosynthesis" is taught in class 10, it can be contacted in the 9th class entitled "Biosynthesis of Proteins". Intrinsic integration plays an important role in perceiving the world of living and the whole world as a single system.


When teaching a subject to a biology teacher, he integrates interdisciplinary integration by combining his intense integration with the subject of the previous subject, linking the subject to such subjects as chemistry, geography, physics, and life. This integration involves the use of the laws, theories and methods that relate to one subject to another subject. Interdisciplinary integration has educational, educational, and developmental functions. This integration is of great importance in understanding the world of understanding, outlook ideas, and systematic shaping of knowledge. Biological processes occurring in living organisms are based on the laws of physics and chemistry. Biology has nothing to do with geography, chemistry, physics, mathematics, technology, and literature, history, sports, and

painting. There is an opportunity for interdisciplinary communication in each context.

The highest level of integration is the comprehensive integration. This integration requires each topic to be linked to life. That is, when teaching a subject to biology, it should stimulate students not only to their scientific side, but also to life. Thanks to this, students acquire vital skills. In turn, the integration lessons make the subject interesting and attractive. It does not allow for repetition, time loss, a comprehensive understanding of biological objects and events. Since integration training is an essential principle, it is impossible to improve or even imagine education without it. The integration of the training extends and deepens the pupils' knowledge level. Integrated students develop and improve their quality of thinking, such as self-reliance, self-censorship, outreach, initiative, diligence, personal discipline and collaboration. This process creates high intellectual communication, and increases the number of strong, educated students. As a result, it improves the quality of the training. The integrated teacher has always played an important role in increasing knowledge on different disciplines, changing the level of intellectual activity, developing students' curiosity, and engaging in creative work. Y. A. Komenski said, "Everything that interacts with it should be studied in this connection" - and showed its advantages. The main task of the teacher is to use such an integrated approach to the subject.

The use of STEM, which is considered a new form of education in biology classes, should also be preferred. STEM is an acronym that is derived from the initials of Science, Technology, Engineering and Mathematics (Science, Technology, Engineering, Math). The name of the educational philosophy, based on an interdisciplinary and practical approach aimed at integrating these subjects. The main purpose of this course is to teach the students theoretical knowledge they learned in natural sciences, engineering and mathematics, by observing and applying them.


In contrast to the traditional approach to teaching science and technology, STEM shows students how to apply scientific-technical knowledge in everyday life through practical exercises. In STEM classes, students are introduced to the sequence of engineering design processes. They are engaged in discussions, division, design, and only then build. At the end of each practical lesson, a project is completed. Children are actively and dynamically trying to get the most out of the lesson with their own hands and themselves. Children do not sit on the table and test the products they purchase continuously. Scientific-technical terms and concepts are described in a fun way. In the STEM classes, children learn to express themselves and discuss, because the brainstorm is a complete free-of-charge product at the beginning of each lesson. During STEM classes, students are given full freedom to think.

This teaching method has been applied in different countries since 1950. Currently the most common countries are USA, England, Germany. The main purpose of this method is to form and develop students' skills in the 21st Century. In this teaching method, students develop their own creativity, teamwork skills, logical thinking, and problem-solving skills by applying various information they encounter in math and nature subjects to various problems they face in their everyday life. At the same time applying what they have learned, this information is better absorbed and remains in their memory for a longer time. Particular attention is paid to selected problems and projects being implemented in real life and at the same time student-centered. Lessons created by this method are more exciting and attractive for the students, and they are more active and enthusiastic in the lessons. The teacher needs special knowledge and skills to conduct the lessons.

A modern teacher should be a kind of poet, show what he has to do, and show him what he has created. For this reason, he has to have fundamental theoretical knowledge and should be aware of the methods, ways and means of transmission of these knowledge to the students and the possibilities of using them. According to A. Agayev, training methods are the most effective ways in which the teacher and the student work together to fulfill their educational objectives.

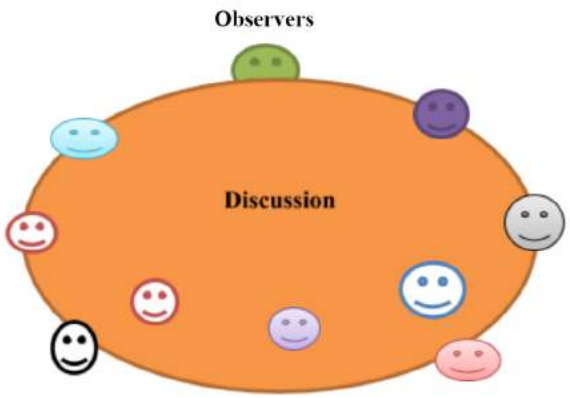
The quality of teaching in teaching science, including biology, is largely dependent on the methods used. In the teaching of biology, it also uses active training methods and techniques, along with traditional proven traditional methods. Modern teaching methods and application of new pedagogical technologies require new approaches in teaching

biology. Students should be provided with vital skills based on all the disciplines that are being taught for this purpose and, moreover, by utilizing the possibilities of biology. The main purpose of planning an active and interactive training in biology teaching is to perform the activities of students on types of thinking (logical, critical, creative). The use of interactive teaching methods and methods dramatically intensifies the learning process, transforms it into a more meaningful and interesting field for each student, and maximizes the activity in the lesson, thus enhancing the developmental aspect of the training. Active learning and the application of new training technologies increase students 'independent thinking ability, accelerating their development from personality to sociality, from dependency to independence, from intuition to logic. Learners' ability to analyze, explore, comprehend and aggregate develops. They have the skills to speak freely in front of the audience.

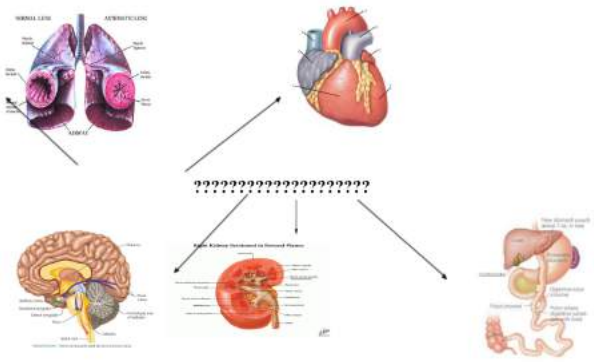
As a result of the new conceptual approach to education in the world practice, active teaching methods and prisons in our republic are preferred. Active student organization of student activities serves to create conditions for the student to independently gain knowledge and skills.

Active training methods include Venn diagrams, rolled games, cluster, ziq-zaq, understanding of the brain, brainstorming, Auction, carousel, etc. it applies. Biology can be used in the teaching of various subjects as well as methods called terminology, brainwashing, brainwashing. This method was proposed by American psychologist A. Osborn in 1953 as a means of creating ideas and solving issues. The purpose of this method is to develop students' freedom, freedom of thought, as well as logical thinking, stimulating their creativity, shaping self-esteem, and improving relationships among pupils. For example, it is best to use this method when teaching the subject "Cell" in the "Human" course, because children have learned about the cell when they started their biology course in grade VI. It is advisable to use a mental attack to remember this information.

Active training also uses an aquarium method to develop discussion habits. The aquarium can be held in several variants. With the help of the pupils, the rules of discussion, that is, follow the rules, do not break each other, and so on. such rules are defined.




The human anatomy course can also be used to teach the concept of teaching different subjects. During the implementation of this method it is supposed to open any key term or keyword. Understanding any important point of view often requires a teacher. it requires understanding and deeper understanding of this method. This method is always in the form of puzzles - it always creates high activity and enhances both logical and critical thinking. For example, the teacher touches on the structure of the various organs in the human anatomy course by showing the images of the different organs and what they are uniting. Of course, children are still referring to topics covered in previous lessons. Of course, children have studied botanical and zoological subjects at the levels of the body, molecule, cell, tissue, organ, organ system and organism.

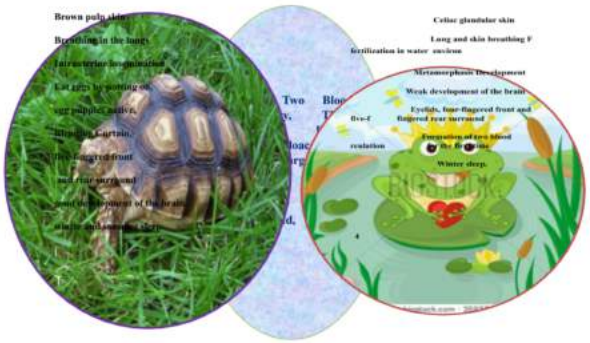


Using a dialogue method in teaching topics that are more controversial than biology gives a good result. In the X class, "Man's Creation and Evolution" is one such subject. The application of the method of dialogue allows each student to express his / her opinion on the problem and to bring true arguments. The discussion ends with obtaining a general idea.

Biological differentiation is also used in the teaching of vocabulary. For example, in the IX class, the

lecturer in the subject "Leucocytes, Immune" teaches the words Leukocyte, Immune, AIDS on the board. Students express their thoughts on these words or speak verbally. The teacher interprets the words or ideas collected with the help of pupils and links them with the keywords.

In the teaching of biology, the Venn diagram method is also used to compare objects or phenomena, to identify their similarities and differences. In this process, knowledge is updated and analyzed, and assessment processes are simplified. In the VII classroom, the teacher instructs the students to identify similarities and attributes of the representatives of the class of water users on the basis of Venn diagrams in the teaching of reptiles.



It is also possible to use a role-playing role-playing game in teaching biology. Successful training in the game process is carried out. Children perceive and memorize information. The main quality that a student gains from this game is emotionally impressive. Each course of biology has topics that allow you to practice role-playing games. For example, in the sixth grade, the ability to use the role games in the teaching of the classification of plants is vast.

Medicinal herbs, harmful habits, causes of breach of biological processes, the role of plants and animals in human health, infectious diseases, and carousel technique on teaching various plant groups can be used.

There are some topics in the context of biology that are very actual in our social life. Some of the themes related to Azerbaijan's flora and fauna, their protection, ecology and health issues. Here, the problem is solved by the method of drafting the project. For example, the method of preparing a series of common blood diseases, their prevention and treatment methods in the teaching of "Blood" and "Blood Circulation" in the IX grade comes from the teacher.

It is advisable to use the Decision Tree method in teaching some subjects in biology. After the teaching of the theme "Social fundamentals of human behavior" in the IX class, the teacher puts the problem of "the influence of alcohol on human behavior and struggle with it".

It is possible to use the Esse method in teaching biology about the problems of humanity, the search for ways to find solutions, and the problems that the pupils have in life.

There are some topics in teaching biology that can be further taught by discussing them. For example, in the IX class, the discussion of the harmful habits of "human health and the means of protection" and the problem of their impact on health is a good result.

Teaching biology lessons at general schools using information technology accelerates teacher and student activities, improves the quality of teaching, demonstrates the key aspects of biological objects, and at the same time strengthens the mental activity of schoolchildren. With the use of information technology, the visual analyzer plays an active role in hearing analyzer. However, students are trained by hearing analytics for facts and events, objects, objects, and processes.

It is impossible to imagine ICT, which is considered the ultimate achievement of our modern scientific and technical progress. Teaching of biology in modern conditions, where new social issues are facing the education system, as well as many areas of society, must meet the requirements of socio-economic and scientific-technical progress. It extends the capability of using scientific information through the efficiency of the training process, improving its productivity, maintaining its optimal size and improving the quality of pedagogical management.

Using information technology in biology classes creates a number of opportunities for the teacher. These include organizing the students' conscious activity in the course of the training process, as well as the opportunity to monitor the event and process in the micro and macro world in a short time. Stages of the lesson should be clarified before using ICT tools in biology classes. At the same time, biological knowledge should play an important role in the lives and activities of students. Thanks to biological education, it is still a sensitive and careful attitude towards nature itself and surrounding people, as well as to all the living creatures. The student understands the extent to which he / she is aware of his or her own health, knows the structure and functions of his or her body, and understands what the ecology means, and thus creates a feeling of sympathy for the flora and fauna.

Today, in the educational process, interactive devices and boards, interactive document cameras, tablets, and evaluation systems are also used. For example, MIMIO Teach-type universal learning technologies facilitate the teacher's work, allowing him to do more and more effectively in less time. Using the multimedia tools, "Electronic Testing" and other training software tools, increase the efficiency of the students in the training is of particular importance in raising the type of "new human" facing the education system. Internet resources can be used in the educational process in an interesting and entertaining direction.

Acquiring pedagogical technologies is the basis of pedagogical skills. In modern times, the application of new technologies and new training methods requires a substantial change in the teacher's, his pedagogical labor, the working style, and ultimately, the working style of the students. In modern times, teachers and textbooks are not the sole source of information. Because we live in the age of information abundance. Now, students receive a lot of information every day through press, radio, television, and computers. All this, in our modern times, is a helpful tool for teachers.

In other words, when organizing biology classes with interactive teaching methods, where the ICT application takes place, students' thinking abilities are rising, from personality to socialism, from dependency to independence, from intuition to logic, accelerating the use of ICT. Internet resources can be used in the educational process in an interesting and entertaining direction.

Of course, it is important that highly skilled, professional pedagogical personnel are needed to properly address some of the current problems of the teaching methodology of biology. Professionalism and competence are the most important quality indicators essential for a teacher. These two qualities have a significant impact on the development of the thinking and personality of the trainees. A professional and competent teacher is deeply and thoroughly familiar with his subject, which he teaches in his profession. The great leader, national leader of our people Heydar Aliyev said about the teacher: "The teacher's name is the highest name in the world. Personally, I do not know a teacher over the place. Because it is a school that brings education, knowledge and knowledge to each of us, and is a teacher at school. One of the important criteria for teacher professionalism is its acquisition of pedagogical techniques. A teacher with pedagogical techniques is a teacher who is able to professionally, professionally and competently implement his profession. The prominent Chinese thinker Confucius wrote that the teacher and the student were riding together. The teacher does not only give knowledge, he directs, manages, and implements educational qualities. Therefore, he is the one who teaches and educates on the one hand, and on the other hand, the teacher himself must have many qualities. Well-known Russian writer and pedagogue L.N.Tolstoy also has a good idea of the teacher: "If a teacher loves his work, he will be a good teacher. If a teacher loves a lone parent and a parent, he will be better than a teacher who reads all the books but does not love the work or the students. He is a perfect teacher if he combines the love of the teacher and his students. True teachers love their profession and try to make it even more perfect. Bringing innovations to his work, applying advanced experience or innovation has led to the improvement and development of pedagogical professionalism. A teacher can not be a bright future of a state, a nation that is uneducated, irresponsible, and does not want to do something for the community, nation or nation. Since it is a teacher who spreads light, every teacher can not develop, whether it is young or old, and does not realize it.

Teaching is a profession that demands self-love and enthusiasm. And there are successes when it comes, and progress. They encourage a teacher to work on his own, learn the secrets of his profession, and direct him to competence and professionalism. When the teacher loves his profession, he does not complain about his difficulties, but rather seeks ways to overcome these difficulties. The professional, professional-loving teacher does not count on his place, promotes further progress, and creates new motives.

The teacher's ability to teach the subject is then up to date, no matter how profitable it is when he does not know his subject, no technology, the efficient method will not be able to overcome this shortfall. All of this requires that every person who has the title of teacher should really be a teacher of his subject, and he must learn all the details.

The policy pursued by national leader Heydar Aliyev in the direction of formation of the education system that meets the national, national traditions and universal values, world educational standards is continuing today. There is extensive material and intellectual resources for the development of science and education in Azerbaijan, and its efficient use is one of the key priorities set by President Ilham Aliyev.

One of the most important conditions for improving the quality of education is the training of highly qualified cadres, most likely, the most up-to-date methods that meet modern requirements. Naturally, highly skilled scientific staff will play an important role in the future shaping personalized,

intellectually, creative, knowledgeable and constantly developing personalities. According to the famous encyclopedic scientist Abu Turhan, "The spiritual image of science depends on who it is. "

Teachers are architects of a new society building. The teacher educates the nation tomorrow. The nation starts from school, teacher. There is such an idea: it is enough for a teacher to have his teacher and a doctor illiterate to destroy one nation: one nation will be morally and the other physically injured. We teach teachers how to discipline students and students, and we must always work on ourselves and be prone to innovation. The teacher should not just build his work today, but should be the person who thinks about the future, looks at the students optimistic, does not remain indifferent to their problems, and treats children as their children. I want to complement my point by the words of YA.Komensky, the founder of scientific pedagogy, with his invaluable contribution in science: "A teacher who does not like his profession, a teacher who teaches his subject, an illuminated shade, a rainless cloud, and a lightless bulb."

**Research Aim** is to identify the use of interactive teaching methods in the teaching of biology at secondary schools in recent times, to identify the effects of the application of these methods on the quality of education and elimination of actual problems that may have occurred in the teaching of biology.

## Research Methods

The research period is based on the following pedagogical research methods: observation, interview, analysis, pedagogical experiment, study and generalization of advanced practice, survey, modeling and so on.

## Research Results

As a result of the research, the following results were obtained.

1. In the field of biology, the interdisciplinary and elaborate interdisciplinary integration is good and the quality of the teaching is high.
2. The introduction of various interactive teaching methods, essentially from the context of the animation and the coverage of the biology lessons, will increase the effectiveness of the lessons.
3. The use of information technology in organizing the lesson creates the basis for more quality training.
4. Building a learning process on a mutually cooperation basis gives more effective results.

## Conclusion

**1.** In our Republic, special training should be provided for the advanced training technologies.
2. Interactive methods should be applied in conjunction with conventional methods in biology classes.
3. Teachers should always work on themselves and be involved in curriculum courses.

## References


1. A.Ahmadov, A. Abbasov. Curriculum development and implementation issues. Baku, Kovsar Publishing House, 2008, 224 p.
2. A.Huseynov, H. Hajiyeva, E.Safarova, A.Gibleliyeva. Introduction of curriculum in teaching biology in general schools. Baku, ASPU Printing House 2015. - 148 p.
3. Gulshan Nadir gizi Hajiyeva. Lectures from methodology of teaching biology (Textbook for high school) – Baku. 2016. – 304 p.
4. Hajiyeva H.M, Abdullayeva T.Q, Hacibeyov E.A Methods of teaching biology by means of active learning in general schools. Baku, 2014. 212 p.
5. M.İlyasov. Modern problems of professionalism and pedagogical competence of the teacher. Monograph. Baku: "Science and Education", 2018, 208 p.
6. R.Mammadzadeh. One of the leading quality trends in education. Teacher's publishing house. Baku. 2010, 169 p.
7. Training and Development Center. Training materials for training participants. Baku, July 2014. 109 p.
8. Training material on the introduction of new subject curricula in general education. 70 p
9. Y.SH. Kerimov. Methods of teaching: Baku - 2009, 279 p

# Psycho-pedagogical Assessment of Adolescent With Down Syndrome (14-16 Years)

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## Abstract

The article is addressed the issue of adolescent with Down syndrome and psycho-pedagogical estimation in the present. Down syndrome is the most common genetic cause of intellectual disability. Children with Down syndrome can get good results if they start training in time. Now, at the beginning of the 21st century, it seems useful to comprehend some of the key problems associated with Down syndrome and to answer a few questions. First, it is necessary to determine what types of medical care are needed for people with Down syndrome to improve their health and increase their life expectancy. Secondly, to understand how to organize the educational process, so that after graduation, young people are in demand and busy. Thirdly, it is important to identify those areas of research, on the basis of the results of which it would be possible to provide people with Down syndrome with adequate medical care and education in order for them to enjoy a full life in society. Improving rehabilitation and health-saving technologies that increase life expectancy, the development of psychological and pedagogical approaches to learning, socialization and integration of people with Down syndrome into society today allow us to talk about a new phenomenon - the full life cycle of people with this genetic abnormality - both in the international context and in and in relation to the conditions of each country.

*Keywords: Down syndrome, adolescent, psycho-pedagogical assessment, intellectual disability*

**Introduction**

The first decade of the 21st century introduced qualitative changes in the development of science and practice in the field of Down Syndrome at the world level. Improving rehabilitation and health-saving technologies that increase life expectancy, the development of psychological and pedagogical approaches to learning, socialization and integration of people with Down syndrome into society today allow us to talk about a new phenomenon - the full life cycle of people with this genetic anomaly - both in the international context and to the conditions of each country.

A psycho-pedagogical assessment provides estimates of the client's intellectual, or cognitive, abilities and educational achievement levels. It also yields recommendations relevant for educational planning.That is why ,this study is very important for people with Down syndrome and their future life.An assessment is usually conducted by a psychologist or other similar professional. Some schools have licensed staff who conduct evaluations (public schools and private schools both often have psychologists who work for the school and who conduct evaluations of students, especially in the elementary and middle school levels), while some schools ask students to be evaluated outside of school. Evaluators try to create a safe, comfortable environment and establish a rapport with a student so that they can make the child feel at ease and get a good read on the student.

Research Aim:The main aim of the study is to investigate psychological and pedagogical issues of people with Down syndrome.Recent studies show that ,desirable results can be achieved based on the positive characteristics of people with Down syndrome .

Research Methods:Observational and tested method have been used in this study. Results have been described on the diagrams and tables.

Research Results:During the study it has been known that, although people with Down syndrome have variety of mental retardation it can possible to form some positive characteristics among these people.

Down syndrome is a result of a genetic abnormality.The signs of people with Down syndrome firs time were described by an English doctor in 1866, John Langdon Down (Down), whose name was the name for this syndrome. Down syndrome, also called Down's syndrome, trisomy 21, or (formerly) mongolism, congenital disorder caused by the presence in the human genome of extra genetic material from chromosome 21. The affected individual may inherit an extra part of chromosome 21 or an entire extra copy of chromosome 21, a condition known as trisomy 21.

Of the characteristic external signs of the syndrome, a flat face with slanting eyes (as in the Mongoloid race, so this disease was previously called Mongolism), wide lips, wide flat tongue with a deep longitudinal groove on it. The head is round, sloping narrow forehead, auricles are reduced in the vertical direction, with attached lobe, eyes with a spotty iris. The hair on the head is soft, rare, straight with a low growth line on the neck. Other characteristics of the disorder may include poor muscle tone, heart or kidney malformations (or both), and abnormal dermal ridge patterns on the palms of the hands and soles of the feet. Intellectual disability occurs in all persons with Down syndrome and usually ranges from mild to moderate. Congenital heart disease is found in about 40 to 60 percent of people with Down syndrome.

The first World Down Syndrome Day was held March 21, 2006. The date for World Down Syndrome Day being the 21st day of the 3rd month, was selected to signify the uniqueness of the triplication (trisomy) of the 21st chromosome which causes Down syndrome.

Currently, people with Down syndrome enjoy more opportunities for social contacts: at home, at school, at work and in society. Today, people with Down syndrome account for 10% of the population with intellectual disabilities. The life expectancy of people with congenital intellectual disabilities is increasing worldwide.In 2002, people with intellectual disabilities over the age of 60 were 641,000; by 2030, the number of this group will increase to 1.2 million people.

In Azerbaijan , the term "Down's disease" is most often used. Some experts argue that there are even two diagnoses: Down's disease and Down's syndrome, but most scientists believe that this is not a disease, but a genetic disorder that conditions the development of a child at an early age.

Down syndrome occurs in about 1 in roughly every 700–1,100 live births. This ratio is the same in different countries, climatic zones and social strata. Down syndrome occurs with equal frequency among both boys and girls.Genetic failure occurs regardless of the lifestyle of the parents, their health, habits and education. The incidence of the disorder increases markedly in the offspring of women over age 35. For example, the incidence of the disorder in the offspring of women under age 30 is less than 1 in 1,000, whereas its incidence in the offspring of women over age 40 can range from about 1 in 100 to 1 in 30. In addition, women who have had one child with Down syndrome have a 1 percent chance of having a second child with the disorder. When I was conducting a research at the Rehabilitation center for people with Down syndrome(Azerbaijan,Baku), I encountered this fact in three families. One of the family's first child is 10 years old, and second child is 5 years old. Both of them are girls. Another family has three children, and two of them are Down syndrome: first and third children. The first child is a girl and the second is a boy.

There are three types of Down syndrome: trisomy 21, mosaic Down syndrome, translocation Down syndrome.

Trisomy 21, the most common type of Down syndrome, occurs when there are three, rather than two, number 21 chromosomes present in every cell of the body. Instead of the usual 46 chromosomes, a person with Down syndrome has 47. It is this additional genetic material that alters the course of development and causes the characteristics associated with the syndrome. Trisomy 21 accounts for 95% of cases.

Translocation accounts for 4% of all cases of Down syndrome. In translocation, part of chromosome 21 breaks off during cell division and attaches to another chromosome, typically chromosome 14. While the total number of chromosomes in the cells remain 46, the presence of an extra part of chromosome 21 causes the characteristics of Down syndrome.

Mosaicism occurs when nondisjunction of chromosome 21 takes place in one – but not all – of the initial cell divisions after fertilization.When this occurs, there is a mixture of two types of cells, some containing the usual 46 chromosomes and others containing 47. Mosaicism accounts for about 1% of all cases of Down syndrome.

With modern medical care, many persons with Down syndrome live into adulthood, although they do have a

shorter life expectancy, living on average to about 60 years, than normal adults because they develop the degenerative conditions of old age prematurely.

Typical features that impede the development and training of children with Down syndrome.

1)Violation of sensory perception due to increased sensation threshold and common hearing problems (up to 20%) and vision (60- 70%); decrease in the rate of perception.

2)Retardation in motor development - in the development of a common, fine motor skills and articulation.

3) Unequal development and the close relationship of cognitive development with the development of other areas (motor, speech, social and emotional development).

Many people think that children with Down syndrome are incurable disease. In fact, this is not a disease but a syndrome, that is a set of features. Moreover, signs that need a competent psychological and pedagogical correction and it is fully amenable to it. And the success of this correction directly depends on how early and comprehensively it began to be carried out.During my research(in Rehabilitation center for people with Down syndrome(Azerbaijan,Baku) I observed that, children who have started rehabilitation earlier, they were very different from others. I took my experiment on ten adolescent with Down syndrome. Five of them started to rehabilitate more early. And five of them started late to rehabilitation .Their psychological-pedagogical assessment are shown in Figure 1 and Figure 2.

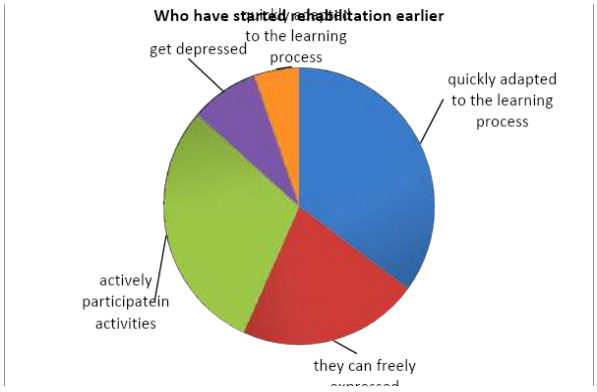


Figure 1

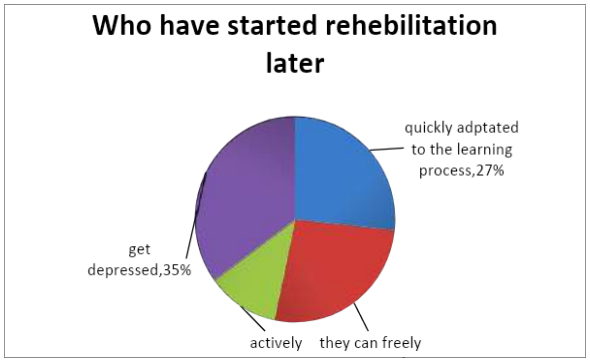


Figure 2

For all individuals, language and communication skills are related to skills in other areas of development. In this section, we review the literature on hearing, oral-motor, cognitive, social, and prelinguistic and early nonverbal communication skills of individuals with Down syndrome. The areas discussed represent a subset of domains that have a potential impact on language development. We chose to focus on these domains given their relevance for individuals with Down syndrome, the breadth of literature available for review, and limits on article length. However, our choice should not be construed as a claim that other areas are not important. For instance, problem-solving or attention can clearly have important effects on language and communication competence even though they are not covered in the section on cognitive skills. An important aspect of the cognitive development of a child with Down syndrome, and further his socialization is mastering his communicative skills.

About 80% of individuals with Down syndrome have moderate intellectual disability, although some have severe intellectual disability and others have IQ scores in the average range (Pueschel, 1995; Roizen, 2007). Visuo-spatial processing and perception are generally viewed as relative strengths in individuals with Down syndrome (Fidler, Hepburn, & Rogers, 2006; Jarrold, Baddeley, & Hewes, 1999; Klein & Mervis, 1999). Although visual long-term memory appears to be impaired (Jarrold, Baddeley, & Phillips, 2007), this impairment may be restricted to visual-object learning tasks, and visual-spatial tasks may constitute an area of relative strength (Vicari, Bellucci, & Carlesimo, 2005). Substantial evidence points to verbal short-term memory impairments that cannot be explained by hearing loss or speech problems (Jarrold & Baddeley, 2001; Laws, 2002). Impaired phonological memory skills (measured with nonword repetition) may be associated with poorer language comprehension, reduced mean length of utterance (MLU),

and reading difficulty in children and adolescents with Down syndrome (Laws, 1998, 2004).

Children with Down syndrome are, like other children with learning difficulties, at risk for impaired language development. Their ability varies widely; though the majority shows moderate learning difficulties (Chapman & Hesketh, 2000) some have severe learning difficulties while other individuals have close to average intellectual ability (Pueschel, 1995; Roizen, 2002)The idea of psychological and pedagogical support for the development of children began to develop along with the formation of the humanistic orientation of education. The emergence of this idea is due to the problems of providing effective qualified psychological assistance.This is due to the specifics of the accompanying work in relation to various categories accompanied in various types of educational institutions.

So, psychological and pedagogical support for the development of a child can be viewed as an accompanying relationship, their development, correction, and recovery. İts aim in the educational process is ensuring the normal development of the child in accordance with the developmental rate at the appropriate age. In high school, an important place is occupied by assistance in profile orientation and professional self-determination, support in solving existential problems (self-knowledge, search for the meaning of life, achievement of personal identity), development of a temporary perspective, ability to set goals, development of psychosocial competence, as well as prevention of deviant behavior, drug addiction.

In the study were included 16 adolescent with Down syndrome with ages between 14 and 16 years old, 9 boys 7 girls, classified as having moderate intellectual disability (IQ values ranged from 50 to 68) according to StanfordBinet measurement. These children were selected from a Rehabilitation centre for person with Down syndrome from Azerbaijan ,Baku. To determine the baseline and after the training level reached for all groups we assessed learning ability and worksheets . Children were asked to solve every 4 items for each of the skills listed above.

| No ability | Students | Age | IQ | Learning |
|---|---|---|---|---|
| 1 | R.H | 14 | 50 | 1 |
| 2 | A.N | 14 | 52 | 1 |
| 3 | C.N | 14 | 54 | 2 |
| 4 | A.İ | 14 | 59 | 3 |
| 5 | S.A | 15 | 57 | 1 |
| 6 | T.D | 15 | 58 | 4 |
| 7 | E.N | 15 | 61 | 2 |
| 8 | O.İ | 15 | 64 | 3 |
| 9 | V.A | 15 | 55 | 1 |
| 10 | E.R | 16 | 56 | 3 |
| 11 | B.T | 16 | 55 | 4 |
| 12 | K.Ə | 16 | 57 | 4 |
| 13 | S.L | 16 | 60 | 4 |
| 14 | M.M | 16 | 62 | 0 |
| 15 | Y.M | 16 | 66 | 4 |
| 16 | A.D | 16 | 68 | 4 |

According to their performance of learning ability, the children were divided into 2 groups, 8 children each. The first group (non counters) consisted of four children who could not learning at all. Their chronological age ranged from 14 to 15years old and their IQ ranged from 50 to 64. The second group consisted of 8 children who could answer questions and could do simple operations as logic worksheets and outlook. Their chronological age ranged between 15 and 16 years old and their IQ ranged from 56 to 68.

There are many adolescent in the centre who can not speak and other social abilities.Also,they can not doing simple things.Example:self care skills,self feeding skills and etc.Some of them are very aggressive and they do not communicate with their peers. After discussing with their parents ,i realized that ,the reasons of their retardation are following:

-absence of early intervention

-being isoleited from society

-absence of communication with their family members and peers

-parents do self care skills (including dressing, eating, cleaning teeth) for children themselves

-children are spending their more time on phone and TV

-the individual needs of children are ignored by parents

A variety of therapies can be used in early intervention programs and throughout a person's life to promote the greatest possible development, independence, and productivity. Some of these therapies are listed below.

Physical therapy includes activities and exercises that help build motor skills, increase muscle strength, and improve posture and balance.

Physical therapy is important, especially early in a child's life, because physical abilities lay the foundation for other skills. The ability to turn over, crawl, and reach helps infants learn about the world around them and how to interact with it.

A physical therapist also can help a child with Down syndrome compensate for physical challenges, such as low muscle tone, in ways that avoid long-term problems. For example, a physical therapist might help a child establish an efficient walking pattern, rather than one that might lead to foot pain.6

Speech-language therapy can help children with Down syndrome improve their communication skills and use language more effectively.

Children with Down syndrome often learn to speak later than their peers. A speech-language therapist can help them develop the early skills necessary for communication, such as imitating sounds. The therapist also may help an infant breastfeed because breastfeeding can strengthen muscles that are used for speech.5

In many cases, children with Down syndrome understand language and want to communicate before they can speak. A speech-language therapist can help a child use alternate means of communication, such as sign language and pictures, until he or she learns to speak.7

Learning to communicate is an ongoing process, so a person with Down syndrome also may benefit from speech and language therapy in school as well as later in life. The therapist may help with conversation skills, pronunciation skills, understanding what is read (called comprehension), and learning and remembering words.

Occupational therapy helps find ways to adjust everyday tasks and conditions to match a person's needs and abilities.

This type of therapy teaches self-care skills such as eating, getting dressed, writing, and using a computer.

An occupational therapist might offer special tools that can help improve everyday functioning, such as a pencil that is easier to grip.

At the high school level, an occupational therapist could help teenagers identify jobs, careers, or skills that match their interests and strengths.

Emotional and behavioral therapies work to find useful responses to both desirable and undesirable behaviors. Children with Down syndrome may become frustrated because of difficulty communicating, may develop compulsive behaviors, and may have Attention Deficit Hyperactivity Disorder and other mental health issues. These types of therapists try to understand why a child is acting out, create ways and strategies for avoiding or preventing these situations from occurring, and teach better or more positive ways to respond to situations.

A psychologist, counselor, or other mental health professional can help a child deal with emotions and build coping and interpersonal skills.

The changes in hormone levels that adolescents experience during puberty can cause them to become more aggressive. Behavioral therapists can help teenagers recognize their intense emotions and teach them healthy ways to reach a feeling of calmness.

Parents may also benefit from guidance on how to help a child with Down syndrome manage day-to-day challenges and reach his or her full potential.NDSS. (n.d.). Managing behavior. Retrieved June 14, 2012, from http://www.ndss.org/Resources/Wellness/Managing-Behavior/ External Web Site Policy.

**Conclusion**

Young people with Down syndrome should be supported to acquire language and speech skills, meet communication needs, gain social skills, and gain access to literacy and math skills. You can see them have strong empathy skills, good social skills, good short-term memories, and visual learning skills. Like all students, students with Down syndrome have many strong interests and need training programs.

**References**


Abdelahmeed, H. (2009). Use of the Behavioural Approach in Teaching counting for children with Down syndrome. International Journal of

special education, 24(2), 1-10.

Abdelhameed, H. R. (2007). Do children with Down syndrome have difficulty in counting and why? International Journal of Special Education,

22 (2), 129-139.

Baroody, A. J. (1996). Self-invented addition strategies by children with mental retardation. American Journal on Mental Retardation, 101(1),

72-89.

Bashash, L., Outhred, L. & Bochner, S. (2003). Counting skills and number concepts of students with moderate intellectual disabilities.

International Journal of Disability, Development and Education, vol. 50, 3, 325-345.

Brigstocke, S., Hulme, C., & Nye, J. (2008). Number and arithmetic skills in children with Down Syndrome. Down Syndrome Research and

Practice, 74-77.

Buckley, S. (1995). Teaching children with Down syndrome to read and write. In Nadel L. (ed.) Down syndrome: living and learning in the

community. New York, Chichester, Wiley-Liss.

Buckley, S. (2007). Teaching Numeracy. Down Syndrome Research and Practice, 12(1), 11-14.

Chapman, S. & Hesketh, J. (2000). Behavioral phenotype of individuals with Down Syndrome. Mental Retardation and Developmental

Disabilities Research Reviews, 6, 84-95.

Clements D.H. (2002). Computers in early childhood mathematics. Contemporary Issues in Early childhood, 3(2), 160–181.

Faragher, R., Brady, J., Clarke, B., & Gervasoni, A. (2008). Children with Down Syndrome Learning Mathematics: can they do it? Yes they can!

Australian Primary Mathematics Teacher, 13(4), 10-15.

Gelman R. & Cohen M. (1988). Qualitative differences in the way Down syndrome and normal children solve a novel counting problem. The

Viorel Agheana and Nicoleta Duţă / Procedia - Social and Behavioral Sciences 186 ( 2015 ) 38 – 45 45

Psychobiology Down Syndrome (ed. Nadel), pp. 51-99. MIT Press, Cambridge, MA.

Germain, R. (2002). A´positive` approach to supporting a pupil with Down syndrome during´dedicated numeracy time`? Down Syndrome:

Research and Practice, 8 (2), 53-58.

Horner, V. (2007). Teaching number skills and concepts with Stren structural Arithmetic materials. Down Syndrome Research and Practice,

12(1), 27-31.

Nye, J., Fluck, M., & Buckley, S. (2001). Counting and cardinal understanding in children with Down syndrome and typically developing children. Down Syndrome Research and Practice, 7(2).

Ortega-Tudela J.M. & Gomez-Ariza J. (2006). Computer assisted teaching and mathematical learning in Down syndrome children. Journal of Computer Assisted Learning. 22, 298-307.

Porter, J. (1999). Learning to count: a difficult task? Down's Syndrome: Research and Practice, vol. 6, 2, 85-94.

Pueschel, S.M. (1995). Down syndrome. In Parker S. & Zuckerman B. (Eds.) Behavioral and developmental pediatrics. New York: Little Brown

# Problem Of Culture And Religion Relationship In Works Of Scientists - Emigrants Of The Russian Abroad

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## Abstract

In the article the phenomenon of the Russian abroad is revealed, the analysis of the religious Christian and valuable concept of culture created by domestic scientists-emigrants outside the Homeland is presented. The period of their forced stay abroad was connected with the identification of religious and secular values, the determination of culture and religion relationship which emerged, from their point of view, in their general focus on the development of internal freedom and a creative power of a personality.

The author pays attention to the fact that the scientists saw the originality of domestic culture in orthodox methodology, polyphony and unity of national cultures of the people of Russia, openness and dialogicity with world achievements of culture; describes social and cultural activity of the representatives of the Russian abroad in preserving continuity between the Russians who lived in the different countries and getting acquainted of the younger generation with spiritual and moral values of native culture by means of creation of Centers of school education, teacher training orthodox colleges, associations for children and young people, printing editions, etc.

Finally the author makes conclusion about the fundamental idea of the development of culture and religion relationship that causes its timeless and international character, its addressing the future.

*Keywords: religious Christian and valuable concept of culture, Russian abroad, national and cultural self-identification, subjective culture, spiritual and moral values, freedom, creativity*

**Introduction**

Rapid development of the technocratic civilization in the 20th century and the digital way of life in the 21st century highlighted the problem of development of a man in the new world, his personal qualities causing innovative ways of sociocultural and spiritual and moral formation of a personality. In this regard the purpose of this article is to reveal understanding of the problem by scientists of the Russian abroad; to recreate the concept of the Christian and valuable culture grounded by them; to analyze the mechanisms of correlation of culture and religion offered by the scientists and a general approach to the integration of religious and secular values assuming a dialog of world and domestic systems of culture becoming apparent in recognition of the right to own originality and maintaining specifics of spiritual life of the society by a simultaneous search of spheres of mutual enrichment and long-term cooperation of cultures; to show genesis of the stated ideas and their predictability for the future.

Works of many modern researchers are devoted to the study of philosophical and pedagogical heritage of scientists of the Russian abroad. Among them are the works of M.V. Boguslavsky, V.A. Vladykina, O.N. Gulyukina, V.I. Dodonov, V.M. Klarin, V.M. Petrov, M.N. Kuzmin, I.L. Sirotina, E.P. Chelyshev, etc. in which different aspects of a phenomenon of the Russian abroad are presented. The

specifics of this article are to concentrate the main attention on revealing the essence of the religious and valuable concept of culture created in emigration, its continuity with a domestic philosophical and pedagogical thought of the pre-revolutionary period, with the Orthodox tradition

**Methodology and methods of the research.**

The methodology of the research is based on the ideas of culturological approach, namely: the ideas of culture in the Russian philosophy (N.A. Berdyaev, B.P. Vysheslavtsev, S.I. Gessen, N.V. Gogol, I.A. Ilyin, L.P. Karsavin, I.V. Kireevsky, K.N. Leontyev, V.S. Solovyov, F.A. Stepun, G.P. Fedotov, P.A. Florensky, G.V. Florovsky, S.L. Frank, A.S. Homyakov, G.G. Shpet, etc.); the positions of the theory of local civilizations (N.Ya. Danilevsky, A. Toynbee, etc.), the culture axiology (B.M. Bim-Bud, G.P. Vyzhletsov, M.S. Kagan, N.O. Lossky, etc.), the ideas of concepts of a dialog of cultures (M.M. Bakhtin, V.S. Bibler, M. Buber, Yu.M. Lotman), the ideas about the development of the history of Russia (N.M. Karamzin, V.O. Klyuchevsky, etc.) and also the civilization approach to the analysis of the historical pedagogical phenomena (G.B. Kornetov, M.V. Boguslavsky, etc).

The following methods are used in this research: comparative analysis, content analysis, induction, deduction, conceptualization, extrapolation, constructive genetic method.

**Research results and their discussion.**

1917 became a reference point of appearing a world phenomenon: the Russian (Russian) abroad. After the October revolution Soviet Russia was left by about 1,160,000 people, partially at their own will, partially on enforcement. By the end of 1931 there were 427 domestic scientists abroad including 5 academicians, 140 professors – perfectly educated teachers of the leading Russian universities, each of them could become pride of any European state and enter successfully into its cultural and intellectual elite. Among the famous philosophers and cultural figures were: N.A. Berdyaev, B.P. Vysheslavtsev, I.A. Ilyin, L.P. Karsavin, N.O. Lossky, G.P. Fedotov, G.V. Florovsky, S.L. Frank, etc. "In the world history there is no similar phenomenon by the volume, number, cultural value which could be compared to the Russian abroad.

From the three great outcomes – the European diaspora, departure of Protestants from France and departure of Russians from their Homeland –the latter is the largest and most considerable, and from the cultural point of view, the most peculiar", – the historian P.E. Kowalewski wrote, giving an assessment to the tragedy which happened [10, T. 1, p.123].

The Russian exiles continued their activities in the countries of Europe, America, Asia, Africa, Australia and made a significant contribution to the development of science, arts and education.

Especially powerful was their heritage in the humanitarian sphere and, in particular, in the field of philosophy. The problem of correlation of culture and religion was crucial in their researches and received the deepest and original reasoning. Its development was carried out in the context of those basic ideas, that methodological platform which were presented in the pre-revolutionary period in the domestic philosophical thought. First of all, it is necessary to mark that Russian scientists parted the concepts "culture" and "civilization", putting the special sense in them. Culture is treated by them since Slavophile works, as a becoming spiritual substance and it concludes a hierarchically organized system of spiritual values. G.P. Fedotov designated these specifics of understanding of culture and he already wrote in emigration: "The civilization, of course, is included into culture, but in its ground floors" [12, T. 1, p. 200]. B.P. Vysheslavtsev supported the same position comparing materialism and civilization spread in the West , indicated the closeness of these phenomena – the priority of the external over the internal and spiritual. Culture, in his judgement, "is affirmed by the value of the sublime, not the value of the high, of the sacred, but not of the strong; the value of the greatness but not of the size …" [2, p.119].

Defining the essence of the civilization approach, B.P. Vysheslavtsev emphasizes that it is based on "the technical principle", on the logic of the "scientific and technical mind" without knowing any "logic of the heart" [2, p.286]. In this regard I.A. Ilyin wrote: "The person with the blind heart doesn't learn the Perfect and won't see God … Religion from spirit; it lives as spiritual evidence; and if people will stop loving this gift, turn away from it, mock at it and eliminate it finally, then in their culture the sacred core will die, culture will stop being spiritual and will stop being as culture, generally" [7, p.18].

Movement of society to the scientific and technical progress was declared on the eve of 1917 in different works, close to Marxism: "The technological level of society, its economic building – are the things which define its cultural tasks …", – A.A. Bogdanov claimed. The similar orientation remains in state policy of different countries and so far [1, p.56].

Interest in the development of the phenomenon of culture in European researches arose long enough and by the New time it was comprehensively comprehended in the western philosophy where its rational, ethical and esthetic functions were grounded and there emerged a necessary methodological basis for the further development of the theory of culture. In Russia the necessity for its study arose

much later, by the 19th century, and the concept of culture was based on Orthodoxy methodology taking into account European philosophical achievements . Assessing the direction of culturological studies of western philosophy, domestic scientists, starting with A.S. Homyakov, paid attention to the dangerous trend of culture secularization from religion increasing in the West, proclamations of culture neutrality in relation to it. They tried to emphasize an originality of their own approach, its productivity and prospects. So, V.V. Zenkovsky in his article "Russia and Orthodoxy" (1916), pointing to "high spiritual giftedness of Russia marked the undoubted national character traits shown in Orthodoxy, at the same time he stated that it is "universal" and "keeps in itself the idea of supernational unity of people into Christ's Church" [5, p.4]. By this in the Russian religious philosophy it was convinced that the Christian faith is one for different Christian confessions and, therefore, cultural issues must be developed in line with the single religious context.

In works of domestic scientists it was repeatedly emphasized that religion and culture are united by the general direction on the manifestation of internal freedom and development of creative power of the personality. The relevance of national and cultural self-identification in many respects predetermined attention of Russian scientists - emigrants to the problem of correlation of religion and culture which, in particular, became central in V.V. Zenkovsky's works.

Epistemological and ontological features of the problem are reflected in his articles "Idea of Orthodox Culture" (1923), (1922), "Orthodoxy and Russian culture" (1924), "Problem of church culture (1933) and in the collection of articles under his edition "Orthodoxy and Culture".

In these works the significance of correlation of religion and culture for salvation of mankind from a possible misfortune, the feeling of which was intensified by the experienced situations of expulsion, "homeless" emigration and horrors of the still forthcoming war was comprehensively revealed.

Researching the reasons of revolutionary events in Russia, V.V. Zenkovsky addresses its history, shows the origin of Orthodoxy, stages of its formation. Among the significant moments the scientist selects the emergence of old believers, focuses on the malignancy of "isolationism" in spiritual development of the nation and positivity of a dialog between Western culture and religion, in this connection he emphasizes its role in forming religious consciousness in his homeland. V.V. Zenkovsky specially dwells on the problem of relations in Russia of Slavophiles and Westerners, establishes a positive value of the latter in their best manifestations, in forming religious consciousness of the compatriots. Orthodoxy, from his point of view, "from its beginning to the last days, was full of great and internal interest to "culture", … it motivated cultural creativity, was an education carrier, it has steadily and persistently sought to mitigate the vital relations, to spiritualize and transform life" [5, page 70]. According to V.V. Zenkovsky the example of N.V. Gogol whose idea about "orthodox culture" became fruitful for the subsequent philosophical researches is demonstrative in respect of the realized communication of religion and culture. Spiritual search of the writer gave him the opportunity to come to the conclusion that only the unity of religion and culture can save mankind. At the same time V.V. Zenkovsky marked that the turn to the church idea doesn't mean denial of secular culture, but raises the major question "about its consecration by its Christian transformation" [5, p.210].

In 1952 V. Zenkovsky creates the generalized work on the problem of correlation of religion and culture "Our era" where he describes the consequences of the most "fatal fact" of the era of church "neutrality" of culture, its dissociation, begetting "the partial person". He highlights a number of reasons determining this status: "ecstasy of technique and its power"; faith in "boundless development of science" and "independence of natural mind of faith"; "disconnection in our inner world of mind and heart vision, "non- religious understanding of morals", "rationalism of moral life"; "aesthetic humanity"; turning into "aesthetic hedonism"; "individualism ideology", creating egocentrism and leading to loneliness of a person; the "tragedy of freedom" perceived by society as permissiveness. All these reasons ultimately define the formation of "an icy civilization" (V.V. Rozanov's term) [5].

In revolutionary events in Russia scientists-emigrants saw the brightest manifestation of catastrophe in the spiritual sphere. The first attempt of the analysis of its motive force was reflected in the book "From Depth" published in 1918, authors of articles (S.A. Askoldov, N.A. Berdyaev, S.N. Bulgakov, V. Ivanov, A.S. Izgoyev, S.A. Kotlyarevsky, V.N. Muravyev, P.I. Novgorodtsev, I.A. Pokrovsky, P.B. Struva, S.L. Frank) pointed to the number of factors which led to bloody events: development of materialistic views in society; the isolation of intelligentsia from the people; violation of national unity because of the destruction of spiritual unity of society; the crisis of church which didn't manage to become the spiritual leader of the people.

The designated reasons of the happened tragedy simultaneously specified the ways of overcoming crisis in all Europe and in Russia. The most completely the directions of the exit from the depth of falling were revealed by I.A. Ilyin

in his work "The way of spiritual renewal" (1932 - 1935). According to the scientist it is necessary "to learn to believe" that can be reached "by loving the perfect", "to learn the freedom", "the conscientious act", to learn "to build... a family hearth", to learn "spiritual patriotism", "true nationalism" [8, p.245]. Thus, seven leading values: faith, love, conscience, freedom, family, homeland, nation must constitute the basis of spiritual revival. The implementation of these values in life will allow to create a "holistic culture" and overcome a gap between "the heavenly and the earthly".

Considering Orthodoxy as the foundation of the national culture the Russian scientists-emigrants, teachers, religious and culture leaders aimed to construct the education of children and youth on the basis of domestic cultural religious values. Almost in all countries where the emigrants lived Centres of school education were created abroad. V.V. Zenkovsky directed the Pedagogical Bureau of the lower and higher school which carried out the considerable organizational and informative work for the creation of practical recommendations in the field of teaching and brining up younger generation in different countries. Such activities were carried out by the Paris Orthodox institute named after Sergey Radonezhsky in which the High female theological courses and the Religious and pedagogical office were opened, "The religious and pedagogical bulletin" was edited by V.V. Zenkovsky) was published, the theoretical and methodical works concerning education were published. The Russian highest teacher training institute named after Ya. A. Komensky was established in Prague. To support the traditions continuity in education gymnasiums were founded in pre-revolutionary Russia. By 1 January 1924 in Europe there were already 43 Russian educational institutions where 6,937 children and teenagers were taught [10, T.1, p.79]. Issues of their psychological and pedagogical support were simultaneously resolved.

The special attention was drawn to the issues of the national, patriotic and orthodox education by values assimilation of the Russian secular and spiritual culture and their subsequent introduction to the course of all human values. For carrying out purposeful education the Russian Houses as centers of the organization of out-of-school work with children and teenagers were opened.

The objectives of the national and patriotic education were advanced before specially created organizations for children and young people, such as NORS – the National organization of the Russian scouts abroad, NOK – the National organization of knights, the society "Russian Falcon", etc. In their program documents they suggested objectives the young people should get acquainted with the cultural and religious domestic heritage.

For streamlining of the multiple activities on the national patriotic education in 1926 the association RSCM – "The Russian Student's Christian Movement" which became the real center of combining the different areas of work with teenagers and youth was created. So, the Paris Centre of RSCM had the following structure: kindergarten for children up to 5 years old and a children's community; from Sunday to Thursday school for children of 6 - 10 years old; a team of knights and a maiden team (5 clubs for boys and for girls); clubs of the student's Movement department, including a club to study Russian culture; the Christian Union of doctors within the Movement; a library; a literary music club; summer camps.

The Russian Student's Christian Movement to create a common information space published a collection "RSCM Bulletin" where works of the scientists of the Russian abroad were printed and it contained information about events taking place. The magazine "Russian School Abroad" was issued in Paris and Prague edited by S.I. Gessen and S.I. Kartsevsky having a pronounced pedagogical focus was served for the same purpose. The analysis of the texts of these magazines indicates that the older generation of emigrants took care of rooting growing children and youth into the native culture.

In patriotism the representatives of the Russian abroad saw manifestation of spiritual and national unity. L.P. Karsavin called the national culture "historical individuality", "culture -personality", "symphonic personality" and thought that the Russian culture was characterized by "multiunity" where each voice was rather unique, but finally it is subjected to the general idea [9]. The scientists-emigrants paid attention to the fact that Christian understanding of the nation didn't bear enmity among peoples. In their opinion militant nationalism doesn’t bet on cultural identity but on the state power. G.P. Fedotov interpreted nationalism as a result of civilizational but not cultural development of the society destroying cultural self-identification of the people [12].

One of the most outstanding scientists of the Russian abroad I.A. Ilyin was the passionate preacher of involving the younger generation to the national spiritual and moral values acted. In his work "Axioms of religious experience" I.A. Ilyin revealed the mechanism of spiritual culture formation in a man. The philosopher most of all of the famous internal, "immanent" to the person experiences and it is impossible without them" [7, T.1, p.18]. Movement to God, to spirituality, to perfection is the movement to subjective culture; it is a deeply internal process based on the personality initiative, its inner activity and therefore – a free and creative process.

In the context of the opinion expressed by I.A. Ilyin the domestic scientists-emigrants (S.N. Bulgakov, N.A.

Berdyaev, B.V. Vysheslavtsev, S.I. Gessen, V.V. Zenkovsky, N.O. Lossky, G.P. Fedotov, G.V. Florovsky, etc.) paid special attention to the development issues of the emotional sphere of a personality, the essence of freedom and creativity, the role of art in "inspiring soul " and the upbringing of worship for God and life.

The deepest analysis of the specified problems was made by B.P. Vysheslavtsev in his book "Ethics of changed Eros. The problem of the Law and grace" where he pointed the inextricable connection between sublimation and spiritual human nature, addressing "deep psychology" (S. Freud, K. Yung, etc.) and overcoming biological understanding of the essence of physical human nature. He criticized strongly the rational lifestyle of the society and emphasized the link between subconscious processes and the sensual and affective sphere of a man. The scientist claimed that the reliance on irrational and emotional processes is the most important development mechanism of spiritual culture of a personality. B.P. Vysheslavtsev formulated the evaluation criteria of "true art" where the ideals of beauty, kindness, truth and "grace" should be created [4].

Christian teaching about Spirit freedom served as the methodological source of understanding of a problem of freedom for scientists of the Russian abroad, that is, they considered freedom was considered as the providence in the spiritual human nature. As a result they thought that it is more logical to speak not about the right of natural freedom but the process of "spiritual rising" to freedom. They also expanded the axiological aspect of its interpretation, claiming that without connection with "the sphere of meanings" and Good the problem of freedom couldn't be solved (V.V. Zenkovsky). At the same time the Russian emigrants paid attention to conscience, its main valuable aspect, emphasized that spiritual integrity of personality is recovered by the conscientious act: a person accessed to his selfness and, through a dialogue – reflection, performed vertical spiritual development, fully realizes himself in external culture, that is, acts in horizontal being. As a result the ideal embodiment of the Christian symbol – the cross representing unity of vertical and horizontal lifelines of a man was carried out.

Understanding of the relationship between religion and culture as a creative process encouraged scientists of the Russian abroad to consider the problem of creativity. The decision of this problem was presented in a more completed form in the fundamental work of N.A. Berdyaev "Freedom philosophy. Creativity sense". Berdyaev as well as his countrymen, religious philosophers, focused firstly on the Divine essence of creative process, the link of Creator and the creation of the world when a person fights with evil and sin in creative activities and continues "creation activity" at the same time. In creativity inspired by secular culture the call for the sublime was heard, such kind of creativity possesses "power of growth", and not "the decrease of creator's strength".

**Conclusion.**

Thus, having reflected one aspect of heritage of scientists of the Russian abroad, connected with the problem of the relationship of culture and religion, one can see depth of methodological reasons for the advanced positions; wealth and a variety of the postulated ideas; the creative nature of the expressed ideas and their addressing the future; vital, object, "obvious" (I.A. Ilyin) orientation of theoretical works of our countrymen.

In the 90th of the 20th century in new Russia already the works of the Russian abroad representatives began to be opened and explored and simultaneously there emerged a discussion about national and cultural heritage identity created by the scientists-emigrants. One cannot agree with E.P. Chelyshev's point of view believing that "taking into account the ideological, world outlook, aesthetic differences of culture of the metropole and the Russian diaspora they are parts of a single complete system of the Russian national culture [10, T.1, p.7]. B.P. Struve being in exile confirmed this opinion: "This foreign Russian literature is a flow of the all-Russian literature which is temporarily taken aside that when time comes will join the general direction of this literature" [10].

Agreeing with these statements of the authoritative scientists it is necessary, in our opinion, to emphasize that the heritage of the Russian abroad is timeless and it can't be restricted to frames of one country. In the conditions of culture values devaluation, globalization of society and strengthening a digital lifeway, ambiguously proceeding processes of religious and national identification it can become a basis of the international reflexion of a way of the further solution of questions of spiritual directivity of the modern culture and productive inclusion to its valuable semantic contents.

**Literature:**

1. Berdyaev N.A. Freedom philosophy. Sense of creativity. M.: Pravda, 1989. 605 p.

2. Bogdanov A. A. Cultural problems of our time. M.: Izd-e S. Dorovatovsky and A. Charushin, 1911. 92 p.

3. Vysheslavtsev B. P. Crisis of industrial culture: Marxism, neosocialism, neoliberalism. New York: publishing house of Chekhov, 1953. 350 p.

4. Vysheslavtsev B. P. Ethics of the changed Eros. M.: Republic, 1994. 368 p.

5. Zenkovsky V. V. Collected works. In 2-t. About Orthodoxy and religious culture: Articles and sketches (1916 - 1957). T. 2. M.: Russian way, 2008. 528 p.

6. From depth: Collection of articles about the Russian revolution. M.: Mosk publishing house. un-that, 1990. 298 p.

7. Ilyin I. A. Axioms of religious experience. Research: in 2 t. T. 1. M.: Russian book, 2002. 605 p.

8. Ilyin I. A. Way of spiritual updating. Belgrade, 1935. 246 p.

9. Karsavin L. P. History philosophy. SPb: Set, 1993. 350 p.

10. Cultural heritage of the Russian emigration: 1917-1940. In 2 kN. T. 1. M.: Heritage, 1994. 520 p.

11. Rogova A. V. The ideas of education of the person of culture in a philosophical and pedagogical thought of Russia and the Russian abroad: the second half of the 19th century – the first half of the 20th century: Diss. … Dr.s ped. Sciences. Abstract: 13.00.01. SPb., 2004. 41 p.

12. Fedotov G. P. Destiny and sins of Russia: The selected articles on philosophy of the Russian history and culture. In 2 t. T. 1. SPb: Sofia, 1991. 352 p.

# Developing Creativity Of Students In Higher Pedagogical Schools

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## Abstract

The author touched upon a number of components of students' creative abilities and clarified their way of application. Ability to build lessons rich in creativity and diverse ideas is formed when students have a perfect knowledge of their profession, interest, and child psychology. As a result, it is noted that the development of students' creative abilities will help them to build classroom models that are more thought-provoking, more modern, motivated by students' interest and love while being a teacher in the future.

*Keywords: Research, creativity, student, forms of thinking, identity, integrative relationship, teacher, pedagogy*

**Introduction**

Teacher staff is being trained at higher pedagogical schools. Students of the Faculty of Biology and Chemistry conduct research in this field. Based on their theoretical information, they learn the ways of teaching modern biology lessons in secondary school.

Students get acquainted with biology, secondary school textbooks, pay attention to and analyze topics given there. They also talk about issues that are incomplete and complete. They are discussing. Each student expresses his opinion on the subject and confirms with the help of his research.

Students build models of lessons to be taught in biology subjects at secondary school. At this time, they make interesting ideas. The set of models meets the requirements of the modern classroom. They carry out very interesting motivations and research on the problem. The goal is to create great interest in biological sciences, nature, and classroom in school students.

At the same time, the students who are preparing to become a teacher at school take into consideration the ability to utilize these data throughout their lifetime and to apply what they have learned while establishing a student model. In the construction of creative lesson models, students consider an individual approach to students as one of the key issues.

During the lesson, assignments are prepared to develop critical, logical, creative thinking, which forms of student thinking. Students will be guided in this direction. Making negotiations and discussions related to the lesson. Students' free ideas, opinions are treated with great respect.

Such fascinating, thought-provoking, different ideas and scientifically-structured lesson require great creativity of the student. In this way, students are provided with extensive information on the ways in which creativity can be developed in universities.

**Essence and description of the problem.**

Samples of the laboratory training concerning the teaching of following related biology was shown. In such lessons, students both conduct laboratory works, and study to make modern lesson models and analyze topic as a perfect teacher:

**TOPIC: The structure of the seed.**

Class: 6th grade.

Standard: 1.1.2 describes the structure of living things.

Training outcome: Describes the structure of seeds of monocotyledonous and dicotyledonous plants.

Integration: With Life. With topics due to vegetative and generative organs of plants.

Form of training: with groups, collective work.

Method of training: brainstorming, scheduling, venn diagram.

Resources: textbook, the table related to structure of seed, scheme, electronic presentation, video material, various plant seeds, lens.

Motivation: The teacher shows a few plant seeds (apple, apricot, rice, pea, sunflower, bean, corn) and asks questions:

*Which part of plant is this?*

*What can you say about the structure of the seed?*

*Research question: What is the structure of the seeds of monocotyledonous and dicotyledonous plants, and how do they differ from each other?*

Students fulfill the assigned task.

**Step 1.** The students are divided into groups. They are given the following methodical instructions:

1. What is the teacher's goal in teaching this topic?
2. What is the basic concept of this topic?
3. Are you satisfied with the pictures and illustrations on this topic?
4. Are you satisfied with the information about the external structure of the leaf?
5. What this topic is related to other issues?
6. How can you make the motivation for the topic?

The teacher divides students into 3 groups by giving 2 assignments to each group.

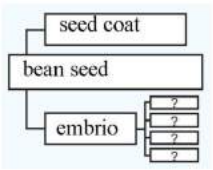
After a while, students solve their tasks and discuss writing on the board.

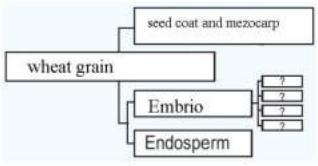
**Step 2**. The teacher gives 3 assignments to each group

***Work page 1***

1) Complete the scheme (a, b) and choose the ones that are appropriate for the words in the question mark.

Radicle. Endosperm. Plumule..Pistil.Hypocotyl. Ovary. Seed leaves. Ovule.



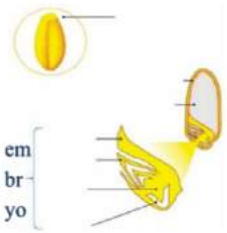

1. *Hypocotyl*
2. *Plumule*
3. *Radicle*
4. *Seed leaves*

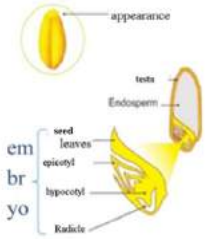
1. *Seed leaves*
2. *Hypocotyl*
3. *Plumule*
4. *Radicle*

2) Choose plants in which nutrients are gathered only in the cotyledon:

Violet, bean, pea, tarragon, wild white radish, poultry, wheat

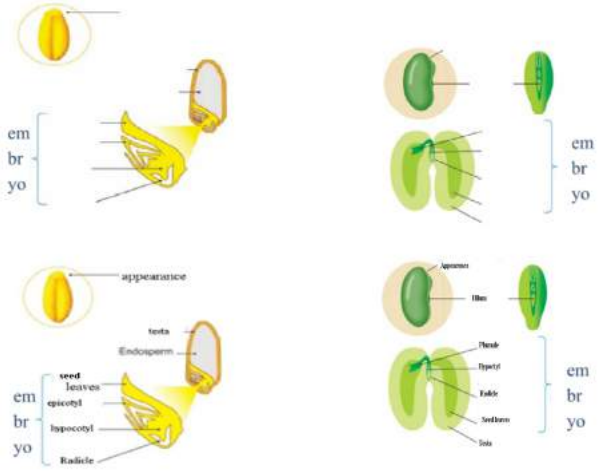
3) Note parts of wheat seed:




***Workpage 2***

1) Mark the parts of the bean and wheat seed and explain their differences.




***Different features:*** *There are two seed leaves containing nutrients in bean seeds, but wheat is monocotyledonous and the nutrients are gathered in endosperm, seed coat of monocotyledonous is adjacent to mesocarp and can not be separated.*

2) Complete the table and mark the parts and functions of the seed

| Part of the seed | Function |
|---|---|
| ***Seed coat*** | it protects the seed from external influences - drying and damaging |

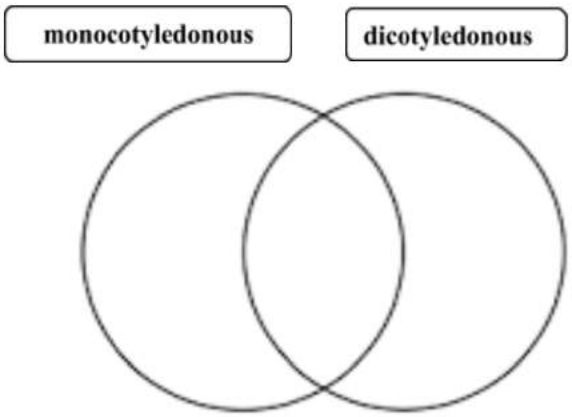
| | |
|---|---|
| ***Endosperm*** | a special group of cells, in which nutrients are gathered. It serves to feed the embryo of the seed. |
| ***Embryo*** | It is the first stage of the future plant. There are *radicle, epicotyl, hypocotyl, seed leaves* in the embryo. |

3) Which dicotyledonous plant contains nutritional supplements in endosperm that surrounds the embryo?

a) Wheat
b) Capsella
c) Violet
d) Onion
e) Bean

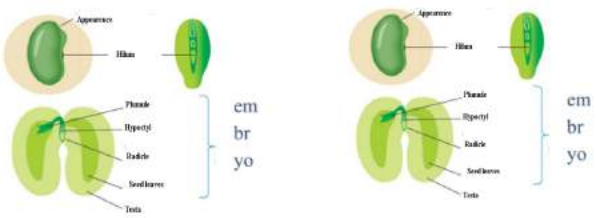
***Workpage 3***

1) Note similar and different features of monocotyledonous and dicotyledonous plants.

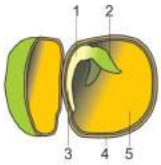



**Similar features**: *Seed has seed coat, embryo and nutrients*
**Different features:***The seed of dicotyledonous plant contains two seed leaves with nutrients, while the seed of monocotyledonous plants a seed leaf and nutrients are gathered in endosperm, but the seed coat of the dicotyledonous plant is adjacent to mesocarp and can not be separated.*

2) Mark the parts of the embryo.




3)Which parts of the chickpea seed have been shown in the picture?




1.Hypoctyl
2.Epicotyl
3. Radicle
4. Seed coat
5. Seed leaves

What assignments would you give to teach basic concepts that you have defined about this subject? (The student also learns how to prepare a task.)

a) The assignments which you made on the topic should be based on the form of thinking (critical, creative, logical). That is, the student should be given tasks that develop 3 forms of thinking.

b) Use the three forms of integration (intradisciplinary, interdisciplinary, extradisciplinary) in the exercises you made related to the topic.

After discussing the assignments of this stage, the teacher gives another assignment.

**Step 3.** At this stage, students are given the next assignments.

Laboratory work. Learning dicotyledonous plants on the bean seed.

Equipment: The lens, swelling bean seeds that are soaked in the water for some days. Progress:

Each group is given bean seed soaked a few days and a lens.

1.They look closely at the shape and color of the seed and hilus on which there is a scape scar.

2. They peel the soaked and swelled bean seeds and pay attention to the two large and thick seed leaves and the embryo under the coat.They look at the embryo with the lens and find the radicle and the small buds.

3. They draw a picture of the bean seed.

Students learn how to do this with their pupils while working on their assignments.

Finally, the teacher asks students with the following questions:

1. What was your most enjoyable job in today's workout?
2. What else would you like to know about the teaching of the topic today?
3. What kind of task did you like about this topic?
4. Which task didn't you like about this topic?

Groups are marked with the help of the following table

MARKING AND REFLECTION

Marking table

| criterias \ groups | I | II | III |
|---|---|---|---|
| Fulfilling the assignments correctly | | | |
| Using time effectively | | | |
| Presentation | | | |
| Cooperation | | | |
| Closing | | | |

Purpose of the research: Formation of students' modern thinking, ideas, and creative thinking, knowledge, skills.

The assumption of the research: The research suggests that the teaching of creative subjects in students is highly effective in the teaching profession, the child's great love, care, and attention.

Method of research. In order to carry out the experimental-practical direction of the research, surveys were conducted to determine students' creative abilities.

**Methods and stages of mathematical-statistical data processing**

Modern mathematical statistical methods were used in the processing and analysis of the data obtained as a result of data analysis for the solution of the tasks set in the research work, and the preliminary statistics (average price, dispersion) were calculated.

The division of received data was consistent with the normal division, asymmetry and exposure indicators (a representative error was calculated), so the student criteria were used for a comparative analysis of independent choices. The correlation coefficient is calculated using the person criterion.

Empirical research data was used on SPSS computer software for data processing. In general, the experimental psychological study of the problem was conducted among 280 students. Of these students, 70 were I courses, 70 in II courses, 70 in III courses and 70 in IV courses.

**Correlation analysis results**

In this study, we were asked to determine how important their creative abilities are for students who are preparing to become teachers and how they relate to this idea. Here, statistical analyses on the importance of creativity (negative and positive, active and passive) in teaching have been conducted and presented in a comparative form of courses.

In this regard, the following questions were asked the students and the results were summarized:

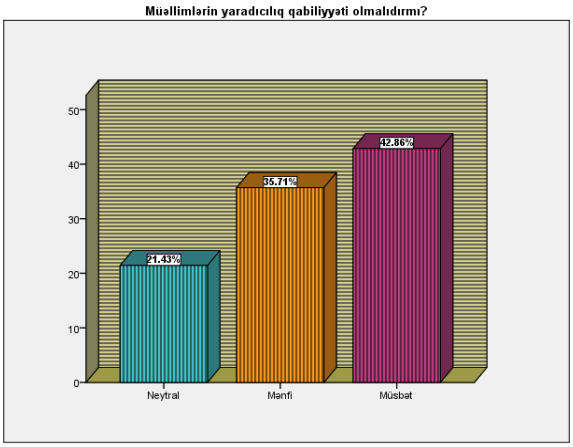
42.9% of the respondents (280 students) were positive and 35.7% answered negatively, whether the teachers should have creative abilities. At the same time, 21.4 percent of the respondents' questions on the question was neutral (table 1 and diagram 1).

Table 1. response of the respondents to the question “Should teachers have creativity capacity”

**Should teachers have creativity capacity?**

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Neutral | 60 | 21.4 | 21.4 | 21.4 |
| Negative | 100 | 35.7 | 35.7 | 57.1 |
| Positive | 120 | 42.9 | 42.9 | 100.0 |
| Total | 280 | 100.0 | 100.0 | |

Diagram 1. response of the respondents to the question “Should teachers have creativity capacity”



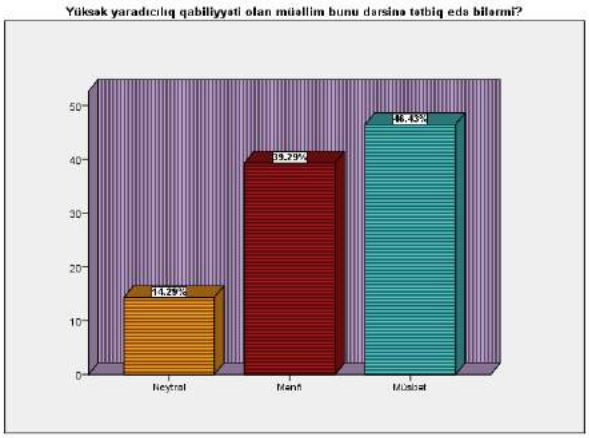

46.4 percent of respondents answered positive, 39.3 percent responded negatively to the question: "Can a teacher with high creative ability apply it?" At the same time, 14.3 percent of the respondents' question on the question was neutral (table 2 and diagram 2).

Table 2. response of respondents to question “May the teacher with high creativity capacity apply it to lesson”

May the teacher with high creativity capacity apply it to lesson**?**

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| neutral | 40 | 14.3 | 14.3 | 14.3 |
| negative | 110 | 39.3 | 39.3 | 53.6 |
| positive | 130 | 46.4 | 46.4 | 100.0 |
| Total | 280 | 100.0 | 100.0 | |

Diagram 2. response of respondents to question “May the teacher with high creativity capacity apply it to lesson



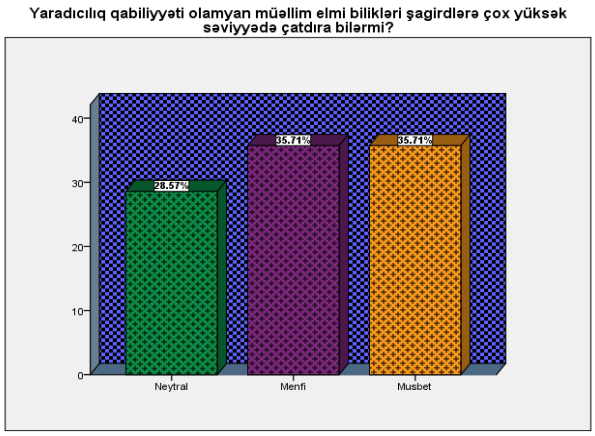

35.7% of the respondents answered positively and 35.7% gave a negative answer to the question, “Can non-creative teachers deliver scientific knowledge to students at a very high level?” At the same time, 28.6 percent of the respondents had a neutral attitude towards the issue (table 3 and diagram 3).

Table 3. response of the respondents to the question “May teacher with high creativity capacity apply it to lesson”

May teacher without creativity capacity deliver the scientific skills to students in high level?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| neutral | 80 | 28.6 | 28.6 | 28.6 |
| negative | 100 | 35.7 | 35.7 | 64.3 |
| positive | 100 | 35.7 | 35.7 | 100.0 |
| Total | 280 | 100.0 | 100.0 | |

Diagram 3. Response of respondents to the question “May the teacher without creativity capacity deliver the scientific skills to students in high level”



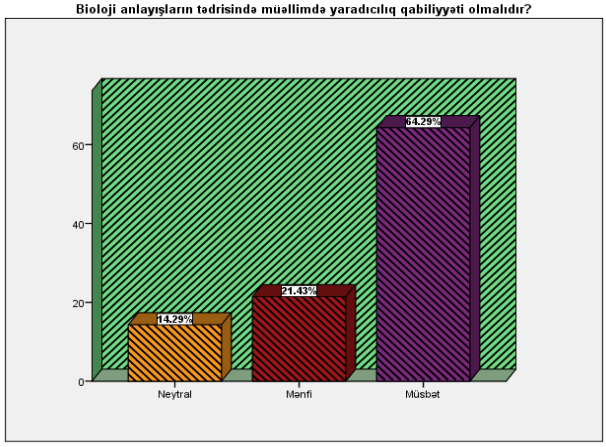

64.3 percent of respondents answered positive and 21.4 percent responded negatively to the question “There should be creative capacity in teaching biological concepts”. At the same time, 14.3 percent of the respondents' question on the question was neutral (table 4 and diagram 4).

Cədvəl 4. Response of the respondents to questions “may teacher with high creativity capacity apply it to lessons”

Should the creativity capacity of teacher be in the teaching of biological meanings?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| neutral | 40 | 14.3 | 14.3 | 14.3 |
| negative | 60 | 21.4 | 21.4 | 35.7 |
| positive | 180 | 64.3 | 64.3 | 100.0 |
| Total | 280 | 100.0 | 100.0 | |

Diagram 4. Response of respondents to the question “Should teacher have creativity capacity in the teaching of the biological meanings”



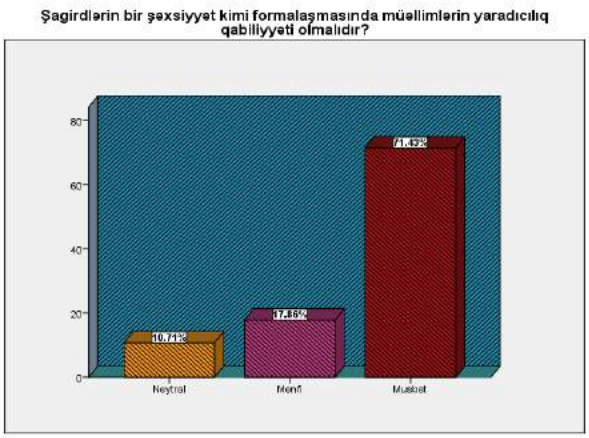
71.4% of respondents answered positive and 17.9% answered negatively whether the question should be whether teachers should have creative ability to form a personality. At the same time, the position of 10.7% of the respondents on the question was neutral (table 4 and diagram 4).

Table 4. Response of the respondents to the question “May the teacher with high creativity capacity apply it to lesson”

Should teachers have creativity capacity in formation of the students as a personality?

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Neutral | 30 | 10.7 | 10.7 | 10.7 |
| negative | 50 | 17.9 | 17.9 | 28.6 |
| positive | 200 | 71.4 | 71.4 | 100.0 |
| Total | 280 | 100.0 | 100.0 | |

Diagram 4. Response of the respondents to the question “Should teachers have creativity capacity in formation of the students as a personality”




Respondents see the “creative abilities of a teacher” as a prerequisite for a teacher to “apply the teacher's creative abilities to lessons” and consider that there is a link between these two variables. The analysis of the data (respondents' responses) shows that there is a strong positive correlation between these two variables, and the relationship between these two variables is 0.01, with Pearson's earnings of 0.916 and P = 0.000.

Correlations

| | | Teacher should have creativity capacity | Application of high creativity capacity of teacher to the lesson |
|---|---|---|---|
| Teacher should have creativity capacity | Pearson Correlation | 1 | .916** |
| | Sig. (2-tailed) | | .000 |
| | N | 280 | 280 |

**. Correlation is significant at the 0.01 level (2-tailed).

According to respondents, there is a positive correlation between the "achievement of a high level of scientific knowledge to students" and the "creative abilities of teachers". More precisely, the creativity of a teacher necessitates the delivery of scientific knowledge to the students at a high level. The relationship between these two variables has a strong positive connection and is 0.01, the Pearson coefficient was 0.901 and P = 0.000.

Correlations

| | | Teacher should have creativity capacity | Application of high creativity capacity of teacher to the lesson |
|---|---|---|---|
| Teacher should have creativity capacity | Pearson Correlation | 1 | .901** |
| | Sig. (2-tailed) | | .000 |
| | N | 280 | 280 |

**. Correlation is significant at the 0.01 level (2-tailed).

According to the respondents, there is a positive relationship between the "high level of teaching of biological concepts" and the "creative abilities of teachers". More precisely, the high level of creativity in the teacher also affects the learning process and, more specifically, more effective teaching of biological concepts. The correlation between "creativity" and "teaching of biological concepts" variables is 0.01, the Pearson coefficient is 0.821, and P = 0.000.

Correlations

| | | Teacher should have creativity capacity | Availability of the creativity capacity in the teaching of biological meanings |
|---|---|---|---|
| Teacher should have creativity capacity | Pearson Correlation | 1 | .821** |
| | Sig. (2-tailed) | | .000 |
| | N | 280 | 280 |

**. Correlation is significant at the 0.01 level (2-tailed).

According to the respondents, there is a positive correlation between the "formation of students as an identity" and the "creativity in the teacher". In other words, the high level of creativity in the teacher is not merely the teaching process, but also positively influences the student's identity. The correlation between "creativity" and "student identity formation" is 0.01, the Pearson coefficient is 0.780, and P = 0.000.

Correlations

| | | Teacher should have creativity capacity | Formation of students as a personality |
|---|---|---|---|
| Teacher should have creativity capacity | Pearson Correlation | 1 | .780** |
| | Sig. (2-tailed) | | .000 |
| | N | 280 | 280 |

**. Correlation is significant at the 0.01 level (2-tailed).

**Result**

With the help of literature analysis and the experiment we conduct, investigations allow us to reach the following results:

-The student must work hard to become a creative, ideas-rich teacher.

- In order to be a creative student, they must first love children and know their age psychology perfectly.

-The creative student should always be interested in world education so that he can get acquainted with the teaching of new and modern subjects, to apply certain issues to his work.

-The creative student should know perfectly well that he can perform the tasks given therein.

-The creative student should be able to approach the student

individually.

-The creative student should play an important role in the development of childhood thinking. This should be reflected in the lessons he/she has developed.

-The creativity of all students is not at the same level. Teachers should help students develop that.

**References**

1. Abbasov A.N., Alizade H.A. Pedagogy. Textbook for students of higher pedagogical educational institutions Baku: Renessans, 2000, 202 p

2.Babayev M. Huseynov A. Majidov M. Lectures of Teaching methodology of Biology.Baku:BSU,1998,134 p.

3.Alizade A.A. New pedagogical thinking ideas, principles, problems // Azerbaijani school,Baku, 2000, N3, p. 16

4.Haciyeva G.N, Methods of teaching biology. Baku, 2019, p.356.

5.Hasanov A.M. Modernity is regularity of training.7–ASPU news, 2010, page 320-326

# Communication as One of the Main Factors of the Personality Development

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## Abstract

Today, the main task of social education is to build communication skills and to form the culture in younger generation and to ensure that they adopt and own their communication experience . In terms of social training, schools in order to provide success of such an important job, should work cooperatively with the family and the community in a purposeful manner. This is one of the most important lessons of the day to learn the theory of communication and its methodology, as well as the highs and conditions of the formation of communication culture in children, teenagers and young people.

*Keywords: Personality, communication, school, socialization, style*

Socialization of a person is closely linked to the formation of his culture and the acquisition of communication experience. In order for a person to live and work in a society, he must first learn to communicate with people, social groups, learn to communicate appropriate information and be able to influence other people. Without the necessary communication, it is impossible to function, express or manifest in any given industry. In this regard, the ability to communicate properly is an integral part of the socialization of the individual.

Communicationis commonly understood as the process of exchanging information, interacting with each other, and understanding each other. It is one of the basic social requirements and is an important condition for the development and shaping of personality. In modern psychological and pedagogical literature 3 sides of communication have been defined.

1. Communicative party
2. Interactive party
3. Perspective party

There is a need to clarify each of them. We would like to communicate our opinion as follows. First, let's explain the functions of communication:

1. The communicative function of communication is the acquisition, delivery and exchange of information. In this way, people share their thoughts, vision, ideas, feelings, and try to listen, understand, and convince others.
2. The interactive function of communication is the mutual influence of the people and the adequate impact on the party. It is the core of communication.
3. Persistent function of communication. This function is related to the fact that people are perceiving, understanding and expressing their identity. At that moment, the person strives to understand others' self-esteem, at the same time to tackle their senses, to deal with their troubles, and to understand their position.

These functions of communication are interconnected with one another and must be implemented in unity. Unfortunately, sometimes more attention is paid to the function of giving information only in schools - the other two functions are ignored. This complicates the training process. Even though certain information is provided, teacher-student relationships, their mutual influence, and mutual understanding are not met. As a result, difficulties and tensions occur in teacher-student

relations. In order to avoid this, tutor educators should try to implement all three functions of communication in unity

The nature of communication is more than just its style. In the way we communicate, we first understand the totality of personal characteristics in communication. Depending on the form of leadership in the process, three main communication styles are distinguished: authoritarian, democratic, and liberal. When analyzing these features, we see that authoritarian style is an administrative-amulet style. It is based on authority and subordination. Its main means are orders, requests, prohibitions, screams and punishments. In this style, the teacher feels superior to students, responds harshly to every little thing, bans, denies, and sometimes insults. In this case, the student becomes apparently dissatisfied and keeps being humble, giving the teacher a cold attitude, and when it comes to disobedience and resistance, they don't hesitate. Such style makes communication difficult, nervous, insecure, creates an unhealthy psychological environment and leads to conflicts.

The democratic style is a style based on cooperation. It is built on mutual respect, humanism, equality and justice. People are treated as subjects of the activity; his views, interests and interests are taken into consideration, and his initiative and activity are widely shared. The main means of democratic style are persuasion, asking, advice. This style allows us to communicate normally, to create a healthy moral psychological environment, to preserve a person's personal dignity, and to elevate the leader's (teacher's) reputation

The liberal style is a negligent, lazy-based style: the tutor does not interfere, does not show activity, and is formally aligned with issues and tries to get out of the way. This has a negative impact on normal communication and the overall quality of the work.

There are different forms of communication that we want to celebrate some of them:

- Joint creative style;
- Friendly style of communication;
- Communication is a style of fear;
- Communication - distance style;
- Communication - style of capture and so on.

The first two of these individual styles of communication are the forms of democratic communication, the third is authoritarian, and the latter are forms of liberal communication.

For the benefit of communication, the tutor must first adhere to certain conditions and rules. Effective communication rules are as follows: 1) be sincere in communication, 2) show genuine interest in the communicating issues; 3) to give sensitive questions to confirm the correct understanding of what is said; 4) not to interrupt the interviewer; 7) to believe in what one sees, not every word; 8) not to hasten to make conclusions; 9) evaluate the opposite side's opinion; 10) show your attitude to others, and so on.

Effective communication rules are taken into consideration in the communication process, and children and adolescents behave in different communicative situations (at school, family, social group, daily style). Teacher, tutor and parents should consider their sacred duty to gradually develop proper communication habits by keeping students up-to-date with these rules and reminding if them in the communication process

At a small school age, communication plays an increasing role in child's life: it deals with new knowledge, ethics, and behavioral rules in relations with teachers, friends, and colleagues. In public places, it indicates the relationship with the elderly and peers. In the course of joint training activities, smaller schoolchildren are in the new relationship; this attitude has a strong impact on his mental, spiritual-emotional development.

In the communication activity, as an object, other people - their consciousness, motivation system, emotional area, orientation and values. Practice shows that the effectiveness of communication depends on the proper form and application of styles and styles. Two main forms of communication are separated: formal and non-formal communication. Formal communication is regulated by official rules and norms: teacher-student relationships are formal relationships. Informal communication is not defined by official rules because it is personal, and based on sympathy and antipathy. Informal communication has a certain impact on the attitudes of the people, the activities of the collective, and the emergence of moral-psychological climate therein. But a certain limit in informal communication: a special psychological distance, "pedagogical curtain" should be expected. Such communication should hinder the fulfillment of official duties: as they say, their place of work, their place of friendship.

In the research we have come to the conclusion that none of the forms of communication can be differentiated. But relying on formal communication - acting through instructions and commands can lead to formalism, unilateralism, conservatism, and brutality. Just as unofficial communication can lead to anarchy and the removal of the "curtain" between the parties. Therefore, it is necessary to coordinate both forms of communication properly, depending on the specific conditions, the situation.

Research shows that the more teenage relationships with the elderly and the classmates form at school and in the family, communication with their peers has a greater impact on the lives of the elderly and the classmates. Trying to attract the

attention of peers and to gain their sympathy, they try to provide teenagers with various ways: to show their personal qualities directly, or to violate the demands of the adults, or to act in opposition to them, and so on. The motives for adolescents' motives are that the motives behind the violation of social rules by their peers are less than the motivation.

The teenager seeks to get rid of the protection of parents and elderly people by exercising the sense of old age that creates a sense of self-esteem and independence, and tries to build a relationship with them equally. This tendency continues at the youngest age. In some sources, young people are characterized as "rebels," as the "conflict of generations", the "fathers and sons" of the conflict. In fact, the relationship between the fathers and the sons is not the feature of the early youth, but the social changes in society, the family education and the discipline and its means, as well as other factors. A democratic education style does not allow such a situation to exist, even if the necessary autonomy and authoritarian education system does not create a conflict situation for the development of identity.

It is important to focus on a number of issues in their relationships with their children, especially in family relationships, in the context of their social upbringing:

- Family relationships should be based on mutual respect, attention and care, and it is difficult for children to develop a culture of communication;
- Parents should have spiritual and emotional contact with their children, spend their leisure time with them, and have a moral impact on them;
- It is important that children adopt male and female patterns, roles and qualities;
- Together with social-moral, socio-political problems in the family, the values that parents give to social events have a great impact on the development of children from the ideological point of view to community life and citizenship education.

The school has great opportunities to meet the needs of students. The pupil's field of communication is extensive in the learning process and in classroom events. Advanced schools provide opportunities for the development of communication skills by engaging students in colorful collective events and public work, giving greater space to their independence and initiatives.

In school practice, students use different ways to expand their communication. Allows them to be provided. It is crucial to ensuring that they meet their communication needs effectively at school time budget. Presentation shows that most of the students do not use the time budget effectively: most of their children spend their time doing homework, watch television, and computer games. the school family and the community should work closely with the students to discover and to use the time budget effectively in ensuring the communication needs of the pupils, the formation of their readership and readership interests.

Pedagogical communication should also take into account the peculiarities of the upbringing process (continuity of education, multi-national and multi-dimensional whole process, unity of self-discipline and reintegration, etc.).

In the research conducted on teacher-student relationships, the dependence of the teacher's communication style on his / her communication activity was also well developed, depending on the style of communication teachers were divided into three types: active, less active and very active. an active teacher is engaged in organizing communication, interpreting students individually, less active teacher can not change the way communicating, depending on the purpose and the particular situation, the dictatorship of the class is not the character of his interaction with the class. Even though the teacher is flexible in his position, he is vulnerable. Very active communicative communication tends to build on his own stereotypes rather than real.

As seen, the development of teacher-student relationships is conditioned by the nature, position, role, motivation, level of perception and understanding of teachers and pupils, teacher's pedagogical skills, communication styles and culture, degree of appraisal and so on. plays an important role.

Teacher's pedagogical communication plays a special role in communicating with students in communication culture. The pedagogical process at school is based entirely on communication: the introduction of different fields of cultural heritage - knowledge and skills, social practices to the younger generation, their education and upbringing is only possible through communication. Therefore, each teacher should be able to communicate and communicate with the pedagogical culture of communication. The pedagogical culture of communication is based on a variety of factors: the teacher's position in the pedagogical process, the identity, the degree of competence and humanist direction, the means and methods of communication, and so on.

The teacher's culture of communication is indivisible from its general culture. The cultural man is intelligent, fluent, generous, straightforward, kind and sincere; its internal and external culture is united. She is distinguished with the sensitivity, caregiver, humanism and courtesy of the people.

The highest level of communication culture is respect for man, confidence and prestige: in return, everyone will see his respect and trust. Teacher tutor should respect the individual dignity of every child and young person, recognize them as

personality, and defend their self-esteem and self-improvement

An important indicator of the culture of communication is the democratization of pedagogical relations. such communication is based on cooperation, mutual respect, equality and the principles of justice. In this case the teacher looks at the student not as a passive object, but as an active participant in the learning process. VS Sukhomlinski gave concrete recommendations: to feel the person next to him, read his heart, and see his inner world - his joy and sorrow; to experience the joy and sorrow of others as your own personal joy and sorrow. These recommendations of the great educator should become a daily communication and behavioral norm for each teacher-educator.

Students' pedagogical communication is also closely linked to the sense of justice of teachers and educators. Justice is more self-evident in the evaluation of children's and young people's knowledge and moral values. Schoolchildren are very responsive to the price they give to their actions (especially to the teacher's value). The incompetence of a teacher has a strong negative impact on them - dissatisfaction and dissatisfaction. In doing so, it damages mutual relations. Therefore, the teacher should expect equality with the pupils, not to divide them into groups (favorite and unloved). Each teacher needs to find the right traits in the student, and clarify them by addressing their shortcomings.

The teacher's culture of communication enhances the proper selection and effective application of pedagogical methods and tools. Experience shows that the creative range of the communication tools and primes that the teacher implements in terms of the goal is to the extent that the scope and the object of impact are so high.

The culture of communication requires the teacher to cultivate a culturally friendly relationship with the students, respect their personal dignity, be patient and attentive, and take into consideration the motives of the actions.

Many conflicting situations in pedagogical communication come from the correct assessment of the situation, insulting the student's personality, and humiliating his personal dignity.

Everyone in the school - school leaders, teachers and pupils should master the pedagogical communication culture. For this purpose, professional ethics in communication should be strictly observed. As the communication process requires a great deal of patience and perseverance, the teacher should constantly develop this quality;

- in all situations the teacher must always be in line with the generosity, integrity and professional debt;
- Communication should be sensitive to others;
- It is desirable to be brave enough to lose your face in any contact environment;
- By recognizing the dignity of man, it is possible to develop the best. It is necessary to be generous in praising, praise and generosity.
- In the process of communication, kindness, attentiveness, understanding of a person is more likely to change his mind and attitude than the most violent anger.

Finally, it should be noted that in all cases communication culture depends on the teacher's general culture, outlook, wealth trends and values as well as personal qualities. Therefore, a teacher should constantly work on the development of his own development, including the culture of instruction, and he must master pedagogical skills. That is why it is important that the teacher prepares a great genius.

# The Importance Of The Impact On The Formation Of Pedagogical Ideas Of The Greatest Minds In Pedagogy: The Origin And Development Of John Dewey's Pragmatistic Pedagogy

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## Abstract

The focus of this research is the importance of the influence of the formation and development of the ideas offered by the leading minds in pedagogy, carried out on the example of the work of John Dewey. Dewey's pedagogical concept can be objectively researched and evaluated, among other things, through the results obtained by the most distinguished philosophers, pedagogues, scientists of other branches and social contexts that important for the formation of his ideas (primarily John Amos Comenius, John Locke, Jean-Jacques Rousseau, Friedrich Froebel, etc.). The author has concluded that Dewey's conception of education in terms of some of its elements was not completely original, but a complex and elaborate pedagogical approach, as a whole, since it was largely new, specific and adapted to the context of its time was.

*Keywords: education, pedagogy, pragmatism, John Dewey, United States of America*

**Introduction**

The focus of this research is on the analysis of the question of the importance of the formation and development of the thoughts offered by the leading minds, carried out on the example of the work of John Dewey (1859-1952) and his ideas about pragmatism in education. The starting point of the paper is the notion that pragmatist pedagogy is one of the most important directions in the development of pedagogy and education of the 20th century as well as the fact that its influence is still present today. Though numerous studies dealing with the essence and characteristics of Dewey's pedagogical teaching, his theory and practice have been carried out, only a small number have been dedicated to its foundations in the context of considering the basic influences under which they were being originated and elaborated. In order to profoundly analyse and objectively research and evaluate numerous segments of Dewey's pedagogical concept, as well as other great minds of pedagogy, among other things, it is necessary to understand and analyze the thoughts of most important philosophers, pedagogues, scientists of other orientations, that were influential and important for his work, as well as the social context in which his ideas were being shaped. However, the pretension of this paper is not to present or summarize the entire corpus of all influences and their significance for Dewey's overall thought (in the fields of his philosophy, psychology, socio-political concept, or even the whole pedagogy), but to offer a precise review and critically consider the basic foundations and most important landmarks that were significant for the emergence, formation and development of the pragmatism of John Dewey's education. Therefore we have analysed not only numerous interconnections and influences on Dewey's concept of education, especially those offered by John Amos Comenius, John Locke, Jean-Jacques Rousseau and Friedrich Froebel, but also those referring to various social circumstances in which Dewey's pedagogical conception originated and developed.

**Various influences important for the formation of Dewey's philosophical and pedagogical concepts**

One of the first ancient Greek philosophers, Heraclitus (535-475 BC), developed a philosophical theory very close to some basic ideas of pragmatism. The central idea of his philosophy was that there was no fixed or absolute reality, truth or value. According to him, everything is always in a state of motion - change is the only permanent state. Although Dewey opposed Plato's (424–348 BC) utopian concept of society (See more in: Dewey, 1916; Hoyt, 2006; Zorić, 2015: 440-441), he believed, like Plato, that society was a necessary part of human learning experience, and that we have to guard or fight a school that treats the subjects as if they were something separate from the social life itself. In many respects, Dewey and Aristotle (384–322 BC) disagreed, but Aristotle's view of habit and empirical view of metaphysics and natural in teleology largely directed Dewey's thought.

Only pragmatism can be considered as the original American philosophy in its birth and form, although its founders have openly acknowledged and emphasized their intellectual connections and influences by certain European philosophers, pedagogues and other scientists. “The roots of pragmatism, including the one defined by John Dewey, go back a long way: it is a new name for some of the old ways of the specific Anglo-Saxon mindset that the founder of British empiricism Francis Bacon summed up with: Knowledge is power” (Pejović, 1982: 54). Dewey himself pointed out that Bacon's experience had 'unleashed' power. The degree of knowledge and truth correspond to the degree of reality (experience) (Dewey, 1920: 330). While Francis Bacon (1561-1626) believed that such a renewed science based on the inductive method should primarily deal with material things, pragmatists also extended it to the problems of economics, politics, psychology, pedagogy, and even ethics. For example, Dewey in his work, entitled *How We Think* (1910a) goes further in the process of analyzing and highlighting critical and scientific thinking and research as the main method of the process of education.

At the beginning of Dewey's work in American philosophy at the time, German idealism had a significant place and influence, and especially the ideas offered by Immanuel Kant (1724–1804) and Friedrich Hegel (1770–1831) (See more in: Zorić, Domiter-Protner, Vujisić-Živković, 2019: 293-294). Dewey's doctoral dissertation, entitled *Psychology of Kant* (defended in 1884) had as its central theme Kant's theory of the power of judgment, as a mediating function in human experience (Schneider, 1971: 160). Otherwise, pragmatist epistemology has its roots in Kant's thought, which makes the difference between things in and experience of themselves. Pragmatists believe that we can only learn the latter. Like Kant, Dewey emphasized the importance of the mind as an active tool in formulating ideas. He was constantly highlighting the transactional nature of the connection between the organism and its environment. In his autobiographical work *From Absolutism to Experimentalism* (1930), Dewey himself points out that Hegel's thought had a very important influence on his works. This is particularly evident in its emphasis on organic or unique entities as the ultimate goals of research. The logical steps in this process become the instruments we use to reach the essence. This instrumental conception of logic has much in common with the Hegelian dialectic, if interpreted with an instrument that leads to full totality (Rasel, 1998: 729) However, for Dewey, reality is here and now, concrete and variable, in motion and development, individual and social. According to Hegel, the goal of the man and his education is in a continuous, progressive and never completed process of development. If we briefly link Dewey and Hegel to something, then it is growth, development, the dynamic nature of life, not speculative principles.

Undoubtedly, the formation and development of Dewey's philosophical thought was strongly influenced by Charles Sanders Peirce (1839–1914) and William James (1842–1910). Pragmatism, as a philosophical (and indirectly pedagogical) stream, was introduced in 1878 by the article *How to Make Our Ideas Clear* by Charles Sanders Peirce (whom Dewey had earlier, and especially since 1916, until the end of his life, in his works constantly referred to) in which he emphasizes *a pragmatic maxim*: the object of our notion (idea) becomes clear if we consider what consequences it can have in practical terms. William James reaffirmed this position in 1898 in the work entitled *Philosophical conceptions and practical results*, and in 1907, in *Pragmatism: A New Name for Some Old Ways of Thinking,* he generalized and extended to the diverse and once opposed settings of science, but, also, of philosophy, religion and life in general. Dewey persistently elaborated the thesis that the clarity and verification of the meaning of a certain idea or truth lies in the success of its practical, life-giving approach. James's theory of thought as a 'realistic, conscious process by which an organism and its environment become integrated' and its view 'that the organism and its environment determine each other and together, and that thinking is a function of the interaction between the two, such as breathing or movement' become central Dewey's views (Dykhuizen 1973: 68). Dewey believed, just as James did, that there were no invariants, absolutes, or universals, and experience was paramount to him, and, like Peirce, he sought to validate ideas in the

context of their consequences within human experience. Nevertheless, despite the great contribution of Peirce and James, it can be argued that it was only with Dewey that pragmatism became an elaborated philosophical and especially pedagogically developed conception.

One of the most important sources and grounds for Dewey's views is the influence of Charles Darwin (1809–1882) and his *theory of biological evolution* (See more in: Dewey, 1910b). His ideas was embodied in the view that, like certain anatomical and physiological characteristics of man, a man's judgement (knowledge) can be seen only as one organ (tool or instrument) among other organs, which we have acquired in the struggle for survival. For Dewey, "when, in a given situation, two or more different terms emerge in our minds at the same time in order to serve us in that situation, then there is a struggle for survival among those terms, and in that struggle the one who best performs his function wins. ie. a concept that ensures the successful adaptation of man to an uncertain and ever-changing world" (Pejović, 1982: 54-57). Namely, consciousness itself exists not only for the sake of pure knowledge, but also for the successful regulation of man's relation to the environment.

One of the sources of pragmatism, in particular, lies in positivism, and especially in one variant of it – the empirio criticism launched by Ernst Mach (1838-1916), who believed that a man combines sensory elements into certain stable sets and thus constructs what is in ordinary language called things, to make it easier to adapt to the environment in which he lives and works, and a scientist in systematic research does quite the same (Cekić, 1959: 5-8; Nedeljković, 1940: 268; Korać & Pavlović, 2002: 223). Mach believes that scientific concepts and laws are not discoveries of something that exists independently of experience, but merely a convenient conceptual shorthand for summarizing and classifying a large number of experiential objects and events, and merely a subjective way of economizing our thinking. However, while Mach considered man to be a passive being and, like other objects, he could be reduced to a simple set of impressions and ideas, so far the pragmatists passionately emphasized the active side of the human personality and its knowledge. For pragmatists, ideas are not just passive abbreviations of experience, but, above all, instruction manuals and action programs.

Dewey's first works, lectures and books for teachers had significant connections with psychology and were consistent with the then new approach of experimental psychology in understanding the mind as expressed in the works of G. Stanley Hall (1846–1924) (Dworkin, 1959: 5), while Hall's work on experimental and theoretical questions in psychology enabled him to better understand the in-depth connections between psychology, philosophy, and pedagogy. Although there are certain differences between the two authors, "... they share a genetic and dynamic spirit, that is. the belief that spiritual development comes from an inner urge, and that, taking this into account, pedagogy should begin with the child, thus subject to one 'Copernican Revolution' (both using the same term)" (Klapared, 1920: 10). Therefore, it is necessary to point out that Dewey did not highlight as apsolut and only important place and role of the pupils in the educational process, as many authors tend to interpret it.

**The Impact of John Amos Comenius' Ideas on John Dewey**

The influence of John Amos Comenius (1592-1670) on John Dewey's pedagogical ideas can be viewed and analyzed in many ways through two types of relationships, viz. similarities in their ideas and apparent differences. The similarities between their ideas are numerous. They both put an emphasis on the learning process rather than what is being learned. Instead of teaching theory, Dewey and his followers highlighted learning theory, analysis of students' involvement, insisted on developing intelligence, personality and character rather than acquiring knowledge as information - self-realization is the goal (Dewey, 1902: 9). Both authors highlighted the importance of place and time of education, as well as the transition from level to level in education. The biggest similarity between the two is to emphasize the benefits of working for children in groups. Yet, while Comenius' work in the student group was beneficial for cost-effective reasons and collaboration among students, in Dewey's opinion more important issue was the fact that it was focused on group problem-solving, reduced the isolation of individuals, and struggled for developing social intelligence. They emphasized the importance of a positive, learning-friendly atmosphere, which reinforces the significance of elaborating a sense of community. According to Comenius, education continues from life, school is the environment, social and physical. It is education as a social institution that enables society to thrive (Snelgrove, 2017: 47.) For Dewey, the content of the educational endeavor must be social and educational at the stage of a student's development, "conceived as a constant reconstruction of experience; that the process and goal of education are one and the same" (Dewey, 1983). Comenius educational institutions should, also, serve a peacemaking function using knowledge as a prevention for intolerance, while Dewey sees them as a mean whose aim is to develop values for life in a democratic community. The goal of both is to develop adaptable and tolerant active members of a society.

Dewey, like Comenius, was an opponent of the dominance of verbalism in teaching. Both authors emphasized the importance of student activity in the classroom, which increased their attention and quality of learning. Comenius pointed out that students "must find out the truth with their own heads, which necessitates the repetition and rehearsal of the content they are learning, thereby achieving the practical usability of knowledge" (Komenski, 1997: 54). He noted that the education of many, if not in general, consists only of a series of names; that is, they can repeat the technical terms and rules of the arts, but they do not know how to apply them practically (Comenius, 1907). Dewey pointed out the importance to place each unit of instruction within a particular subject in order to stimulate thought, with the important caution that not only words having a "scholastic character" are adopted (Dewey, 1966: 229). Therefore, for Dewey, school is a kind of community life where teachers put students in situations to work on specific problems (intellectual and moral), rather than fill their heads with abstract facts.

There are, also, some apparent or conditional differences between the pedagogical views of Comenius and Dewey. Comenius emphasizes the importance of home (family) upbringing, and Dewey makes a transition from home to school - raising the awareness of the importance of home to school life. The both authors recognized the importance of family and home life to living and working in school.

Comenius pointed out that the teachers "should not start a class until they arouse students' interests" (Komenski, 1997: 141). Dewey believed that in teaching, the teacher should most often be guided by the interests of the students. In schools, as learning communities, an important role should be played by a student who has been given freedom, in order to pursue his or her own interests, and from them the curriculum should grow. In doing so, students become conditioned by the processes of education without such conditionality rendering those external processes educational. Yet he advocates balancing the external needs of society with the intrinsic needs of students (Snelgrove, 2017: 44).

Comenius sought universal knowledge, which would lead to God (Comenius, 1907: 23), while Dewey rejected the notion of universal truths, believing that the correct tendency to come to tentative justified claims, ie. testing and verifying our ideas in practice, while being more against religious content and institutions (authority) and less against religious values (Zorić, 2015: 65). However, these views do not exclude one another. In particular, it would seem that Comenius would agree with the importance of scientific knowledge in solving a person's particular problems, and this could be conditionally called Dewey's principle of universal truth. Comenius himself emphasized that "the highest educational goal is to prepare man for the earthly necessities of life" (Komenski, 1997: 71).

In terms of teaching content, *Latin School,* found by Comenius, incorporates science, history and philosophy to help students form a "solid foundation for any more advanced instruction they may receive in the future" (Comenius, 1907: 275). According to Dewey all studies are important for a child's growth - they are the instruments that are valued because they serve the needs of growth. Comenius points out that there is an evident need to study the whole spectrum of knowledge (through sensation), while Dewey highlights the importance of incorporating a number of scientific topics to promote interdisciplinary problem solving (through interaction). Both authors claim that knowledge should be acquired in all areas but with slight differences regarding the teaching process. In doing so, Comenius advocated direct sensory cognition as a source of learning and nature as a model in education, and although Dewey emphasized the principles of gradualism and pictoriality in addition to the principles of activity, he relied primarily on methods of science to realize educational practice (Snelgrove, 2017: 46-48).

**The Impact of John Locke's Ideas on John Dewey**

Some of John Locke's ideas (1632-1704) were very inspirational and influential to Dewey. It was interesting and encouraging for Dewey that Locke explored the ways in which human beings gain experience and learn things, and his observations made him see that the mind of the individual is born empty (and the board is clean/ latin: *tabula rasa*). Namely, ideas are not innate, as Plato thought, but they come from experience, ie. feelings and reflections. Experiences are imprinted in the mind via one or more within the five senses that a human being possess. Locke believed that the more people had experience, the more ideas imprinted in the mind and the more connections are made between them. In doing so, he felt that one could have false ideas in his mind as well as those which were true. The only way we can be sure that our ideas are correct is to verify them in the world of experience. Dewey, like Locke, emphasized the importance of placing children in the most desirable environment for their education and emphasized the importance of the environment in creating what makes people. His book *Some Thoughts Concerning Education,* issued in 1693 (Lok, 1950) describes the ideal of an individual's education, which is exposed to a variety of experiences, including numerous travels and encounters with people of different cultures. He emphasized the importance of experience, and its connection with thought processes and personality development stimulated many later authors, including Dewey.

However, the vision of the experience offered by John Locke came as a great challenge for Dewey, as well, since it involved seeing the mind, to a considerable extent, as a passive instrument possessed by a human being. According to Dewey, it was Charles Sanders Peirce who found the way out of the deadlock that had been created by Locke. Ideas cannot be seen as isolated impressions on an empty wax board, but as interconnected parts of the experience. Dewey agrees with Peirce that ideas should be determined functionally in relation to individual problems, rather than as a mere mental construction. Locke's view of the mind was too passive in the opinion of Dewey's, especially in the context of the meaning that one's ideas were formed primarily under the influence of external sources. Dewey's objections to classical empiricism, and thus to Locke's ideas, were that he took isolated sensory impressions instead of activity as the basis of experience. The behavior of an organism, from which the empirically oriented theory of cognition should originate, and the sensory impression is only a link in the chain of unique bio-social activity (Životić, 1966: 114-115).

**The Impact of Jean-Jacques Rousseau's Ideas on John Dewey**

The greatest contribution to pragmatism was that one offered by Jean-Jacques Rousseau (1712–1778), and, in particular, the part regarding formation and development of Dewey's conception of upbringing and education, related to the connections and relations between nature and experience. Among other things, Rousseau's visions helped raise a variety of questions regarding what is natural for a child and his or her development. For example, it is unnatural for children to be demanded to sit quietly for extended periods of time, to easily focus on abstractions, to be quiet or to remain silent, to show sophisticated motor control, and the like. It allowed educators to become more sensitive to the psychological, physical and social developmental stages of childhood. Rousseau's orientation to the nature of child development and his belief in the original goodness of people led to modern and reform pedagogy, which, like Rousseau, placed the child at the center of the educational process.

Also, one of the most influential and major hallmarks of Rousseau's thought is that education should be guided by the interests of a child. Interest is not seen as a luxury, but a child's natural tendency to learn about the world in which he/she lives. Rousseau's influence on pragmatism is largely about his perception of the place of nature and the natural in education and the natural developmental process within one's educational experience. Namely, "the undoubted influence of Rousseau's idea of free education on Dewey's pedagogical conception" (Brubacher, 1950: 305), ie. Rousseau's theories about the child's free natural development, in which he singled out the essential elements of each education: the goal and content of the education, the society and the education, the external and internal factors of individual development. Dewey often stands out as one of the main theorists of free education, a theory that has its root in Rousseau's views, except that these had a completely different social role in the time when they worked.

Dewey followed Rousseau in the context of understanding the importance of nature in education, although he rejected his romanticism. Rousseau identified three sources of education: 1. nature, the spontaneous development of our organs and capacities; 2. human beings, the social context in which we place that development; and 3. things, the acquisition of personal experience by the surrounding facilities. Dewey analyzed and was cautious about Rousseau's idea of these three factors as separate operations and their independence. His naturalism differs from Rousseau's in that he believed that the three factors should be viewed in terms of their connection. While Rousseau felt that we should separate and educate the child naturally, Dewey felt that the child should not be separated from the social environment and experience appropriate for proper education. Therefore, Dewey considered that nature contains not only important physical entities, but also social relations.

Educational reformers in the late eighteenth and nineteenth centuries faced two particular aspects of the problem of children. One entails the requirement of childhood as a specific and relatively independent level of human development. This enduring problem arises from the attempt of adults to subdue the development of children by goals that are foreign to their needs and to press them into their molds, not (only) at the request of the adult, but the external interests of the governing rules. Rousseau protested against this by claiming that nature wants children to be children before they become adults, because childhood has unique ways of seeing, thinking and feeling, and nothing can be more pointless than giving our patterns to them. In the context of the previous, Dewey often talks about the relationship between logical thinking and the adult pattern imposed on children whose psychology sees different paths of understanding and cognition.

Putting the child in the center, Dewey may not have brought about the original revolution, as Rousseau had already proclaimed that principle. Contextually, Rousseau's teaching played a positive role when he opposed the scholasticism, formalism, and mistreatment carried out by medieval schools in the eighteenth century, while in Dewey's teaching it reflected the timely crisis of school and the decadence of pedagogy. Moreover, it can be argued that

Dewey's view of the child's position in the educational process is significantly different from Rousseau's, and that he can only be conditionally spoken of as belonging to the same pedagogical approach. Dewey emphasized the great importance of society and its role in the education process. He spoke of a curriculum with or at a child centered on a center that promotes problem-solving, critical thinking and communication skills. According to him, education is (like) life: the interaction of the individual and his environment.

Pragmatist education was seen as a specific continuation and attempt to realize Rousseau's romantic vision of man, which implies a free and natural development for the student in an environment that is primarily directed at him. Moreover, Dewey identified Rousseau as the first education theorist to confirm the link between education and development. Rousseau believed that children had natural instincts to learn and that this would be the best strategy in increasing their freedom to explore and learn on their own. Namely, the imposition of strict disciplinary control only serves to undermine children's innocence and deprive the pleasure of disclosure. Yet, while Rousseau's conclusions underscore and welcome children's self-interest, Dewey views Rousseau's ideas as devoid of any methodological guidance. The task of curriculum development embodied in Rousseau's understanding of concrete practice was left to Friedrich Froebel and Johann Heinrich Pestalozzi and their followers, who struck a better balance between freedom and social responsibility.

**The Impact of Friedrich Froebel's Ideas on John Dewey**

And according to Friedrich Froebel (1782–1852) education would have to be in harmony with nature, ie. in accordance with children's instinctive aspirations or urges. Moreover, according to the author, the child has certain preferences already in preschool age and should be taken into account already. In principle, he expressed his request for harmonization of education with nature and education in relation to child development and its activity. When Dewey began to take up education more seriously, he recognized the importance of preschools, as a place for development and learning without textbooks, and in which educators were expected to work honestly and directly with children.The author had considered this issue in his early works. Froebel, especially in the 1826 book of *Education of Man* (Froebel, 2005), provided numerous predictions for Dewey's laboratory school in Chicago (Zorić, 2010: 649-650). Namely, if we compare their ideas in this sense we will see many similarities. They both emphasize the importance of children's activity, see learning as part of the process of current life and bring books to life. In this, and in other respects, it is easy to believe that Dewey saw Frebel's ideas as something that substantiates his views and supports the value and correctness of the pragmatist conception of education.

Froebel emphasized that the upbringing and education should be in line with the four children's interests, ie. work, knowledge, artistic and religious urge. His interpretation of the harmony of interest and upbringing with nature was not in Pestaloci's or Rousseau's sense, but in the idealistic-metaphysical and mystical context. Namely, although Froebel highlighted the importance of preschool age, play, harmony of education with child development, self-development, activity, creativity, often his approaches to their realization were colored mystically and metaphysically, and so “the ball should introduce the child symbolically to the universe, the ball to follow the dice according to the world law of opposites, etc.” (Žlebnik, 1955: 124) Dewey would, by no means, agree to attach importance of playing games in that abstract and pretentious sense, but primarily in one in which this activity would assist the child in learning about its own surroundings and developing its own creativity. According to Dewey, these are the basic and real interests of the child.

According to Dewey, educators should not primarily consider learning in the context of traditional courses and courses, but rather as interacting students with their environment, among themselves and the teacher, to educate social connections. Dewey insists in the idea that the teacher would have to be occupied, not with the teaching subjects as such, but with their interaction with the student's current needs and interests. Related to this is the stance on the educational value of the play, borrowed from Frebell's romanticism and united with Dewey's pragmatism.

**The Significance of the Impact of Social Circumstances in the US and the World on John Dewey's Work and Ideas**

The emergence and formation of pragmatist philosophy and pedagogy were also conditioned by the circumstances that surrounded, facilitated and encouraged them. Their appearance was especially influenced by the conditions of social life in the USA, characterized by: accelerated economic development, industrialization, urbanization, free trade, liberal democracy (values of pluralism and consensus applied to knowledge as well as politics), culture, economic and political influence in the world, etc. The significant increase in the American population and industrial power, both in the scope and complexity of urban life, was influenced by the hitherto incredible technological applications of the breakthroughs of science, while, to a large extent, poverty, crime and disease occur as a consequence. In this context, the founders of

pragmatism thought that a new method of thinking about the most important human interests was necessary.

Old beliefs, religious and philosophical ones, did not help the man living in that time to understand and effectively advance his life. It was logical to begin by first studying how to think properly about the enormous 20-year-old problems, uncertainty of belief, and frustrations of understanding. In achieving this goal, it could be assumed that the beginning might be about the nature and purpose of thinking, and how effective it can be in achieving any chosen goal. As part of the process of great change and development, "... all the old truths and established norms came under strong and deep doubt, and it is no wonder that the theoretical arguments were little appreciated and the measure of truthfulness has become a practical success" (Žlebnik, 1955: 194). What shook the US so strongly was the emergence of fundamental problems of beliefs and practices created by the development of science and technology. In what the specialized and successful sciences like astronomy, physics, chemistry and biology portrayed as truths, many found reasons to reconsider their previous beliefs and attitudes.

European culture, also, had a great influence on the intellectual life of the United States, as well as its philosophy and pedagogy which underwent various interpretations and adaptations to the specific spiritual and social circumstances of the American way of life. In doing so, it is important to note that Dewey's authority and perception of his work around the world in the mid-twentieth century was different. "Most of Dewey's ideas were not entirely new to those already familiar with the great pedagogical thinkers of the eighteenth and nineteenth centuries" (Ulich, 1945: 318). Moreover, his ideas were relatively well received in Europe, often in the spirit of highlighting their contributions and emphasizing the origins of pragmatism from the thoughts of European thinkers.

## Conclusion

Is Dewey's work unique, new and truly innovative? Certainly Dewey's experimentalist or instrumentalist version of pragmatism shook the world of philosophy and pedagogy when it emerged. Concrete and liberating in character, often referred to as relativism, Dewey's concept of truth, knowledge and teaching was original in its power and refinement, however apparent.

Dewey's thought was an attempt to combat formalism in philosophy, psychology, pedagogy, sociology, and human theory and practice in general. It was often thought that Dewey's pedagogical ideas were mostly reflections and responses to the ideas of Comenius, Locke, Rousseau, Froebel, and their followers, but since they came from outside, it seemed as if they were new. This attitude had its roots in the European elitist attitude and often a very critical, non-analytical and underestimating attitude towards anything coming from the outside, and especially from the USA. Generally speaking, Dewey's work was a kind of completion of trends in education up to the university level initiated by the pioneers in pedagogy, and significantly influenced by democratic change. At the end of the nineteenth century, it turned out that in the society of the USA there were favorable conditions for the emergence and development of a philosophy of education that could meet the continuing critical demands of people to reconcile the imbalances of thoughts and interests that were burdening them, education reform and the emergence of pragmatist pedagogies.

The research has shown that Dewey's conception of education has been under many influences that are not negligible when analyzing its originality, substance and value. This is not to say that his pragmatism is not new or original, it is about its significant intellectual history. We concluded that Dewey's conception of education in the form of some of its elements was not completely original, but as a whole and very complex and elaborate pedagogical approach, it was largely new, specific and adapted to the context of his time. Consideration of these influences is very important, not only for exploring the origin and originality of Dewey's pedagogical concept, but also for his essential understanding and appreciation, as well as its later influences, which are still present today in the fields of life and numerous sciences. This is important because Dewey's concept of education had many correct, rarely deep and high-quality analysis, but also numerous superficial, sharp and vulgarized interpretations and misinterpretations.

## References


Brubacher, S. J. (1950). *Modern philosophies of education*. New York: Mcgraw-Hill book company.

Cekić, M. (1959). *Američki pragmatizam i instrumentalism*. Beograd: Rad.

Comenius, J. A. (1907). *The Great Didactic*. London: Adam and Charles Black.

Komenski (Comenius), J. A. (1997). *Velika didaktika*. Beograd: Zavod za izdavanje i osnovna sredstva.

Dewey, J. (1902). *The Child and the Curriculum.* Chicago: The University of Chicago Press.

Dewey, J (1910a). *How we think*. Boston: D.C.Heat&Co.

Dewey J. (1910b). *The Influence of Darwin on Philosophy, and Other Essays in Contemporary Thought.* New York: Holt.

Dewey J. (1916). *Democracy and education*. New York: The Macmillan Company.

Dewey, J. (1920). Reconstruction in philosophy. In: Barrett, W. & Aiken, H D. (1962). *Philosophy in the twentieth century*, Vol I. New York: Random house.

Dewey, J. (1930). From absolutism to experimentalism. In: Adams, G. P. & Montague, W.P. *Contemporary American philosophy*, vol. II. New York: The Macmillan Co, 12-27.

Djui (Dewey), Dž (1966). *Vaspitanje i demokratija*. Cetinje: Obod.

Djui (Dewey), Dž. (1983) Moje pedagoško 'vjeruju'. *Pedagogija*. 1, 167-176.

Dworkin, S.M. (1959). *Dewey on education*. New York: Teachers college press Columbia University.

Dykhuizen G. (1973). *The Life and Mind of John Dewey*. Carbondale: SIU Press.

Froebel, F. (2005). *Education of Man*. New York: Dover Publications.

Hoyt, M.W. (2006). John Dewey's legacy to China and the problems in Chinese society. *Transnational Curriculum Inquiry.* 3(1), 12-25.

James, W. (1898). *Philosophical conceptions and practical results*. Toronto: University Chronicle. Vol. I, 4.

James, W. (1907). *Pragmatism: A new name for some old ways of thinking*. New York: Longmans, Green and Co.

Klapared, E. (1920). *Pedagogija Džona Duia*. Beograd: Knjižarnica Rajkovića i Đurkovića.

Korać, V. & Pavlović, B. (2002). *Istorija filozofije*. Beograd: ZUNS.

Lok (Locke), Dž. (1950). *Misli o vaspitanju*. Beograd: Znanje.

Nedeljković, D. (1940). Smisao i vrednost pragmatizma. In: Džems, V. *Pragmatizam*. Beograd: Kosmos, 259-301.

Peirce, C. S. (1878). How to Make Our Ideas Clear. *Popular Science Monthly*. 12, 286-302.

Pejović, D. (1982). *Savremena filozofija zapada*. Zagreb: N.Z.M.H.

Rasel, B. (1998). *Istorija zapadne filozofije*. Beograd: Narodna knjiga.

Šnajder, H. (1971). *Istorija američke filozofije*. Cetinje: Obod.

Snelgrove, D. (2017). Testing, Experience, and Reason: Perspectives from Comenius and Dewey. *Journal of Philosophy & History of Education*. 67(1), 35–52.

Ulich, R. (1945). *History of educational thought*. New York: American Book.

Životić, M. (1966). *Pragmatizam i savremena filozofija*. Beograd: Nolit.

Žlebnik L. (1955). *Opća povijest pedagogije*. Zagreb: Pedagoško književni zbor.

Zorić, V. (2010). Laboratorijska škola Džona Djuija – Polazišta, funkcije, koncepcija i kurikulum škole. *Nastava i vaspitanje*. 4: 646-658.

Zorić, V. (2015). Fundamentals of John Dewey's concept of civic education. *History of Education & Childrens Literature*. 10 (1), 427-445.

Zorić, V. (2015). Moral i religija u pragmatizmu Džona Djuija. *Inovacije u nastavi*. 2: 54-66.

Zorić, V., Domiter-Protner, K., Vujisić-Živković, N. (2019). The Influence of John Dewey on Conceptions of *Pädagogik* in Yugoslavia. In: Kudláčová, B, Rajský, A. (Eds.) *Education and "Pädagogik"– Philosophical and Historical Reflections (Central, Southern and South-Eastern Europe)*. Berlin, Bratislava: Peter Lang International Academic Publishers and VEDA Publishing house of Slovak Academy of Sciences (Bratislava), 293-306.