The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: April 30, 2021 | **Pages:** 533-538
Doi : https://doi.org/10.37547/tajssei/Volume03Issue04-86

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

Content Of Pedagogical-Corrective Work On Interdiscipline Formation Of Geometric Concepts For Students With Limited Disabilities

Nazokat Abidova
Teacher Of Tashkent State Pedagogical University, Tashkent, Uzbekistan

Journal Website: http://usajournalshub.com/index,php/tajssei

ABSTRACT

The scientific-theoretical bases of interdisciplinary formation of geometric concepts for students with intellectual disabilities are analyzed. The content of pedagogical-corrective work on interdisciplinary formation of geometric concepts for students with intellectual disabilities is covered.

KEYWORDS

Students with intellectual disabilities, geometric concepts, interdisciplinary formation, scientific-theoretical bases, pedagogical-correctional work, object, emotional experience.

INTRODUCTION

To the problem of concept formation B.G.Ananev, P.A.Blonsky, L.A.Wenger, L.S. Vygotskiy, P.Ya.Galperin, L.V.Zankov, A.V.Zaporojets, P.I.Zinchenko, A.N.Leontev, A.A.Lyubinskiy, S.LRubinshteyn, L.S.Saxarov, B. Much attention is paid to the work of M. Teplov, FN Shemyakin, EV Shorokhova and other researchers. Summarizing the

The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: April 30, 2021 | **Pages:** 533-538
Doi : https://doi.org/10.37547/tajssei/Volume03Issue04-86

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

conclusions of these authors, we can give the following definition of a concept: a concept is an imaginary image of an object or event that is not noticeable at the moment. is a clear emotional reflection, revitalization of the traces formed by his activities. Images of three-dimensional and planar shapes are formed when generalizing the spatial properties of surrounding objects. Emotional experience is the basis for the formation of concepts. In the process of active perception and observation, the child develops a generalized image of the form as a feature of the object. The generalized, visual-figurative nature of the concepts is the result of the work of the second signaling system. In communication between children and adults, the verbal sign is reinforced after each emotional image. It provides distraction from the properties of a single object in the formation of a generalized image of the form. Speech development is of special importance in the development of concepts There are several aspects of the problem of concept formation in education.

According to epistemological theory, the emotional experience expressed in concepts gradually changes. In the early stages of learning activities, the collection of emotional information and the creation of images are done before the regular study of general laws.

MATERIALS AND METHODS

The next stage in the development of educational activities is related to the beginning of the study and mastery of the basics of science. During this period, the transition of thought from a certain emotional-figurative content to an abstract content takes place. Emotional experience serves as a material basis that connects the content of education with personal practical experience. Its generalization ensures the development of abstract thinking.

According to the theory of higher neural activity of IP Pavlov and IM Sechenov, concepts are the only associations that arise in the process of interaction of all analyzers in the study of the object, with the participation of the second signaling system. serves as the basis. Accumulation of sufficient emotional experience is a necessary basis for the formation of the general mental development, the process of thinking. This process is based on the active assimilation of the properties of material reality. They are detected in direct contact with the object [4,54]. B.G.Ananev, P.A.Blonskiy, L.S.Vygotskiy, P.Ya.Galperin, L.V.Zankov, A.V.Zaporojets, P.I.Zinchenko, A.N. Leontev, A.A.Lyublinskaya, S.L. Rubinstein, LS Sakharov, BM Teplova, EV Shorokhova emphasize that active activity is a leading condition for the formation of concepts and determining their level of quality: The movement of the human hand with an object determines the size and contour (shape) of the brain and its leads to the formation of a mental "copy". According to BG Ananev and AV Zaporozhets, the sign that gives the most information to the mind and the first signal system is the contour of the object. The leading role of subject-practical activity, the logical component in the formation of concepts in the formation of mental movements was identified. Mastering the standards of the form implies mastering the system of actions to apply them in practice. The stages of formation of these actions are closely related to the subject-practical activity of the child and his development. In the subject activity, the child should master three main types of sensory movements [3,45]:

The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: April 30, 2021 | **Pages:** 533-538
Doi : https://doi.org/10.37547/tajssei/Volume03Issue04-86

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

1) Identify or search in memory (similar to the image of the form with a new object and a conclusion about its shape), which determines its appearance when compared with a new object, similar in terms of its properties or close to it;
2) Inclusion of the perceived object in a certain category in the form of a certain category by further searching for additional signs confirming the correctness of the conclusions;
3) Modeling, which involves a final conclusion about the properties (shape) of the object, with the definition of all the features inherent in such objects.

RESULTS AND DISCUSSION

Under the influence of playful, effective, and constructive activity, these movements evolve from practical movements with objects to their gradual reduction and the ability to visually recognize the properties of an object. Children develop the ability to mentally disassemble an object, in which children consider each of them separately and then combine them into a whole. The specific features of the process of forming concepts are determined not only by the nature of the activity, but also by the age of its subject. The main role in the formation of mental processes belongs to the leading forms of activity. In elementary school age, normally developing and mentally retarded students, the formation of concepts takes place under the influence of education.

We relied on the research of L.S. Vygotsky in the search for ways to ensure the effectiveness of the formation of geometric concepts in mentally retarded students. The unity of the developmental directions of the normal and abnormal child, the need to teach mentally retarded children in the process of practical training and the initial formation of "practical" intelligence, was the basis for the conclusion about the leading role of education in development. Education must be ahead of development and be the foundation for it.

Peculiarities of the concept of mentally retarded students E.Bedor, K.I.Veresotskaya, L.S.Vygotsky, T.N.Golovina, L.V.Zankov, M.V.Zvereva, A.I.Lipkina, E.I. .Lipetskaya, V.I.Lubovskiy, M.M.Nudelman, M.S.Pevzner, S.Ya.Rubinshteyn, V.N.Sinev, I.M. Solovev, considered in the research of J.I.Shif. Peculiarities of geometric concepts and their formation in mathematics lessons in special correctional school VPGrikhanov, NFKuzmina-Syromyatnikova, Yu.T.Matasov, M.N.Perova, P.G.Tishin, V.V.Ek and considered in the works of others [1,43].

Researchers note the incompleteness, concreteness, stereotypes, indistinguishability of geometric concepts and graphic skills in mentally retarded students, difficulties in transferring knowledge and skills to new situations, practical activities, and their poor relationship with life. These data are confirmed by the results of our identifying experience.

The low level of geometric understanding of students, poor quality, insufficient use of their drawing and graphics skills are the reasons for the disruption of learning activities. However, deficiencies in teaching have a significant impact on the quality of geometric concepts, as well as their transfer.

Disadvantages include the lack of practical training in mathematics classes, during which students have to work independently with different geometric shapes and real objects, take geometric shapes from different materials and draw geometric shapes independently, separating simple geometric shapes into

The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: April 30, 2021 | **Pages:** 533-538
Doi : https://doi.org/10.37547/tajssei/Volume03Issue04-86

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

complex shapes. insufficient number of exercises related to work on obtaining geometric shapes from others (constructive skills).

The results of our empirical experience show that students apply geometric concepts worse in handicraft classes than in practical math assignments. We hypothesized that the reason for the low efficiency of geometric knowledge and the lack of skills to transmit them is the lack of a link between their formation and application in these lessons.

Inadequate use of effective practical activities in mathematics lessons in the study of elements of geometry negatively affects the effectiveness of the process of forming concepts about the shape.

The pedagogical conditions that ensure the success of the formation of geometric concepts in normal and mentally retarded children include: accumulation of sufficient emotional experience; organization of its generalization; special purpose work on its enrichment, perception of emotional movements; to include in the active vocabulary the verbal definition of geometric shapes and to ensure that they are firmly connected with the emotional image; to organize the active activity of the child in accordance with the stages of formation of mental movements.

The following should be taken into account in the educational process: age-related features of concept formation (type of mental activity, leading type of activity), as well as the combination of mastering the emotional components of concepts in practical activities with their generalization and study of theoretical knowledge.

The specificity of each child's defect and the characteristics of mastering the geometric material associated with it require an individual and differentiated approach, taking into account the separated groups of children.

The formation of complete concepts can be done on the basis of the involvement of information obtained during the examination of the object in the study of various objects. The need for special training in the transmission of geometric concepts for the mentally retarded is specific. Therefore, the unity of practical study and reinforcement of geometric material in mathematics lessons and practical application in manual labor lessons should be ensured.

We hypothesized that the implementation of interdisciplinary links between math and handicraft lessons could be one of the most effective ways to shape geometric concepts in elementary school students in a private school.

Generalization of information is the most important psychophysiological mechanism of brain activity. The implementation of interdisciplinary links is based on the generalization and consolidation of information obtained in the system of teaching science. Therefore, it can be concluded that on an interdisciplinary basis it is possible to form concepts with the necessary completeness, stability, integrity and efficiency. This is confirmed by the conclusions about the unity of mechanisms of mental activity underlying the implementation of interdisciplinary connections and the formation of concepts

The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: April 30, 2021 | **Pages:** 533-538
Doi : https://doi.org/10.37547/tajssei/Volume03Issue04-86

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

(reflex and holistic association) in physiological and psychological research.

The interrelation of teaching mathematics with labor training allows to actively study the properties of the object in the process of practical activity and to link it to the process of formation of geometric concepts.

Interdisciplinary transmission allows the repetition and practical application of geometric concepts in a variety of contexts, connections, and activities.

The practical application of interdisciplinary connections in the lessons and the repeated reference to the consideration of geometric material in different working conditions. All this makes geometric concepts more precise and effective, filling them with the emotional content of the subject. As M.N.Perova and V.V.Ek noted, the teacher's attention to the practical significance of geometric knowledge increases children's motivation and promotes conscious mastery [4,54].

One way to provide the conditions for making interdisciplinary connections and forming qualitative notions about form is to incorporate constructive activity into the process. VPGrikhanov, NFKuzmina-Syromyatnikova, Yu.T.Matasov, M.N.Perova, S.M.Popovich, P.G.Tishin, V.V.Ek, who developed the methodology of teaching mathematics to mentally retarded children The authors of the methodology of labor training N.P.Pavlova, V.A.Shinkarenko and the possibilities of using design to improve the quality of mastering and to solve corrective-developmental problems are noted. Construction affects the development of students' spatial understanding, thinking, speech, imagination [2,21].

In the methodical work of M.N.Perova, V.V.Ek on the organization of teaching mathematics in special schools, constructive activity is considered as an opportunity to make interdisciplinary links of geometric material with manual labor and labor education, to combine knowledge acquisition with their use.

CONCLUSION

Research by VA Shinkarenko proves the effectiveness of using this type of activity to shape students' understanding of shape, their ability to perform activities based on geometric knowledge, and their ability to adapt to new conditions.

In the process of construction, children recognize the main geometric shapes and their parts in the object, highlight them; modeling an object given from independently selected parts, dividing geometric shapes into defined components; describe the shape of the drawing and create an object according to the existing drawing; skills and abilities are formed, such as modifying and improving models according to defined conditions.

In the process of making, cutting, and constructing, students learn to visualize, distinguish, and name the properties of geometric shapes, and to use them in their own work. The materials used to make the items, the variety of their sizes, allow the teacher to fulfill the requirement of mandatory modification of the insignificant properties of the geometric shapes studied in a wide range.

The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: April 30, 2021 | **Pages:** 533-538
Doi : https://doi.org/10.37547/tajssei/Volume03Issue04-86

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

This contributes to the growth of generalized geometric concepts and skills formed.

Thus, the establishment of a close link between the performance of manual labor and the formation of geometric concepts in mentally retarded students in mathematics classes helps to increase the effectiveness of the study of both subjects.

REFERENCES

1. Garkusha J.F. Social adaptation and integration of children with special educational needs. - Publishing house: V. Sekachev, 2018.
2. Gavrilushkina OP, Sokolova ND Education and training of mentally retarded children. -M., 2013
3. Ayres EJ Child and sensory integration. Understanding hidden developmental issues. -M .: Terevinf, 2019.
4. Zaporozhets, AV Selected psychological works: In 2 volumes / Ed. V.V.Davydova, V.P. Zinchenko. - T. 1. Mental development of the child / A. V. Zaporozhets. -M.: Enlightenment, 2016.