



PEDAGOGICAL SIGNIFICANCE OF DEVELOPING LOGICAL THINKING IN FUTURE EDUCATORS THROUGH INTERDISCIPLINARY COOPERATION

Solizhanov Jasurbek Valery ugli

Fergana State University

basic doctoral student

<https://doi.org/10.5281/zenodo.8019327>

Annotation: In this article, the pedagogical importance of developing logical thinking in future pedagogues through interdisciplinary cooperation, the pedagogical content of development, and the development of communication culture competence are an urgent task.

Key words and phrases: pedagogical-psychological, globalization conditions, intercultural relations, social necessity, continuous education, individual qualities, economic development, educational standards, education and upbringing, scientific-methodical.

Introduction

The methods of activity of a student with developed logical thinking allow to ensure its quality and efficiency. For this reason, three main levels of activity efficiency are distinguished:

- finding and using new methods of activity when making decisions about a situation;
- achieving a new peak of activity based on deep mastering of the field of science;
- quickly mastering the activity and successfully performing it.

According to the criterion of the level of development of logical thinking, it can be classified into the development of actual and potential logical thinking.

Development of actual logical thinking is a description of the mental characteristics of a student's personality, which is manifested in a high level of mastery of an activity and field of science in comparison with age and social norms. In this case, we are talking about not only the educational field, but also a wide field of various types of activity.

Development of potential logical thinking is a description of the student's mental characteristics that determine only certain mental capabilities for success in a certain field of activity, and is characterized by the fact that he cannot always demonstrate his capabilities. The development of this potential depends on the presence or absence of favorable conditions (difficulty in the family, lack of motivation).

Open and closed types can be distinguished according to the criterion of the form of manifestation of the development of logical thinking.

The development of logical thinking in an open manner is clearly manifested in the activities of future pedagogues even in unfavorable conditions. The success of future pedagogues undoubtedly raises no doubts about the development of his logical thinking. That is why experts in the field of development of logical thinking of students come to the conclusion about the existence of development of logical thinking or high potential possibilities of the student with a high degree of probability. Accordingly, they adequately evaluate the "close zone of development" and clearly determine the work to be carried out with the student in the future. It should also be noted that the development of logical thinking is not always evident.

Methods The development of hidden logical thinking is not clearly manifested externally in the activities of future pedagogues. As a result of this, there is a risk of making a wrong conclusion about the development of the student's logical thinking. As a result, a student with such latent logical development may be judged as "no future" and deprived of the necessary help and support to develop his abilities. Of course, the main reason why the development of logical thinking is manifested in a hidden form is the existence of psychological barriers. They arise in the process of the development and integration of abilities and lead to a violation of the manifestation of the development of logical thinking.

4. Development of logical thinking is divided into general and special types according to the range of manifestation of different types of activity.

The development of general logical thinking is manifested in relation to various types of activity and emerges as the basis of its effectiveness. The psychological core of the development of general logical thinking is reflected in mental abilities built on the basis of emotional, motivational and volitional qualities of a person.

Development of general logical thinking determines understanding of reality, deep emotional and motivational involvement in the field of activity [2].

The development of special logical thinking is expressed in a specific field of activity and serves to determine relations only in a specific field of activity (music, visual arts, sports, etc.).

5. According to the criterion of the uniqueness of the development of periods, it is possible to distinguish between early and late manifestations of the development of logical thinking.

In this case, it is necessary to emphasize the rate of mental development of the student as a decisive indicator of the early or late development of logical thinking. Therefore, the lack of a clear manifestation of the development of logical thinking during this period does not require its denial [1].

The above-mentioned criteria for the development of logical thinking indicate that the problem of assessing the development of logical thinking of students is complex and multifactorial, and the diagnosis of the development of logical thinking should have a comprehensive, comprehensive description and be carried out at different levels and at several stages. should be increased.

Results Our conclusion was confirmed by the scientist K.K. The following seven stages of the development process of logical thinking confirmed by Platonov are confirmed:

- making a list of candidates for the development of logical thinking;
- on the basis of observation, rating scale, responses to questionnaires, to clarify the manifestation of the development of the student's logical thinking in various types of activities and behavior of students;
- using the questionnaire and interview method, to study the history and family conditions of students' families, information about the interests and aspirations of family members, the early development period of future pedagogues, their passions and unusual abilities;
- on the basis of a questionnaire, experts evaluate the abilities of future pedagogues, which are not reflected in their learning and success;
- self-assessment of the student's abilities, motivation, and interests using questionnaires and interview methods;

- assessment of learning, achievements and creative works of future pedagogues [3].

Based on the goal of our research, we used the following three levels to determine the development of students' logical thinking: "high", "medium", "low". Quantitative and qualitative indicators and components (motivational, emotional-volitional, intellectual-active) of the manifestation of the development of logical thinking as a basis for these levels. If the students have motivational, emotional-volitional, intellectual-active components of the development of religious thinking and most of their indicators, a high level; if at least two of these components are clearly manifested and correspond to at least fifty percent indicators, the middle level; if the student does not meet the components of the development of logical thinking and most of the indicators corresponding to them, it is determined that it represents a low level.

In addition, the following levels were taken as a basis for clarifying the manifestation of the development of creative and logical thinking in future pedagogues: stable - a clear need for creativity is formed; situational - the need for creativity has a changeable description depending on the situation; within the possibility - low level of development of creativity.

Also, it was found out that the development of logical thinking within the framework of the study reflects the dynamic description of personality development, and the development of logical thinking manifested in future pedagogues may not be clearly manifested when they reach the upper class. In the same way, the lack of manifestation of the development of logical thinking in the student during the educational process of a certain period of time does not deny the possibility of its occurrence. In addition, the fact that parents do not notice the potential of future pedagogues early, even that some pedagogues rarely speak, demand quiet listening, and do not support non-standard thinking also has a negative effect on this process. It is possible to correctly evaluate the development of students' logical thinking based on the consideration of the classification criteria of the types of logical thinking development, which allow to confirm the fact that the development of logical thinking is a multidimensional phenomenon and the complexity of its assessment.

Discussion The results of the research show that the selection of students for the development of logical thinking based on the indicators of psychodiagnostic tests is not fully justified from a scientific point of view, because the tests for determining intelligence and creativity do not serve as an acceptable tool for diagnosing the development of logical thinking.

It is from the pedagogical point of view that the selection of future pedagogues with developed logical thinking should be considered in harmony with the ethical aspect. strict division of future pedagogues into "developed logical thinking" and "undeveloped logical thinking" will not fail to have a negative effect on his future work. For this reason, based on the results of the research, it was concluded that it is necessary to monitor the above-mentioned criteria in order to determine the development of logical thinking of the students.

That is why, in the process of research, identifying future pedagogues with developed logical thinking should not be defined as the only goal, but should be carried out in connection with the development of logical thinking in future pedagogues and their training. As the main goal of the experimental work process, it was based on the method of determining the development of logical thinking by creating the necessary pedagogical conditions for the intellect and personal development of future pedagogues in general secondary schools.

The results of the research showed that there is no absolute single method of identifying future pedagogues with developed logical thinking, and it is necessary to carry out observation-study work in a number of directions:

At the initial stage, it is necessary to conduct a survey with school leaders who have known the future pedagogues well for a long time. It is worth noting that relying on the opinions of experts at the initial stage of identifying future pedagogues with developed logical thinking as a mandatory component of the evaluation system has given good results in countries such as England, the USA, and Singapore [4].

1) Also, at the initial stage of identifying future pedagogues with developed logical thinking, it is advisable to use psychological methods, control-evaluation methods, which allow to determine the needs of pedagogues. The use of methods developed by the Republican Diagnostic Center, the Republican Center for Social Adaptation of Pedagogues is effective;

- 1) 1) Using intellectual tests to identify future pedagogues with developed logical thinking can also be effective. Only intellectual tests should be conducted by highly qualified pedagogues and psychologists;
- 2) 2) In determining the development of logical thinking of future pedagogues, educational projects also allow to achieve the expected result. Only when preparing educational projects, it is required to fully ensure the individuality of students, to work carefully and responsibly;
- 3) 3) The results of our studies showed that it is expedient to conduct a survey among parents to identify students with developed logical thinking. Although in some cases the opinions of parents about their students have a subjective description, this method makes it possible to determine what future pedagogues like to do outside of school.

Conclusion

Based on the analysis, it was concluded that identification of students with developed logical thinking should be done in several stages and different pedagogical and psychological diagnostic methods should be used at each stage. However, when it comes to improving the system of working with future pedagogues with developed logical thinking and improving the quality of education, special attention should be paid to the issue of supporting and guiding them.

References:

1. Божович Л.И. Отношение школьников к учебе как психологическая проблема // Божович Л. И. Проблемы формирования личности. -М: "Институт практической психологии", Воронеж: НПО "МОДЭК", 1995. - С. 55-107.
2. Коляда Е.П. Развитие логического мышления учащихся-подростков на основе межпредметных задач: Автореф. дис. ... канд. пед. наук: (Математика, информатика). Саратов: из-во Сарат. гос. ун-т им. Н. Г. Чернышевского, 1996. -15 с.
3. Egamberdieva, T. A., & Saydullaeva, A. R. (2022). The Importance Of Axiological Approach In Forming The Cognitive Competence Of Future Teachers. Journal of Positive School Psychology, 6(10), 2009-2015.
4. Платонов К.К. Проблема способностей. - М.: Наука, 1972. -124 с.

Краткая философская энциклопедия. - М.: Издательская группа "Прогресс" - "Энциклопедия", 1994. - С. 281.

