

The essence of pedagogical technology of training of future teachers of humanities to application of cognitive barriers in professional activity

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Paper received 01.11.16; Accepted for publication 10.11.16.

Abstract. The author examines the plot of the pedagogical technology of training of future teachers of humanities to application of cognitive barriers in professional activity which has next stages: motivation, procedural, obtaining of experience and reflexive.

Keywords: barrier, cognitive barrier, pedagogical technology, training of future teachers, a teacher of humanities.

Introduction. The complicated and contradictory processes, taking place in Ukraine, created new challenges for the educational system. The solution of which requires improving teachers' training. High requirements to the quality of professional and pedagogical teachers' training are defined in Ukrainian government documents "Law on General Secondary Education", "Law on Higher Education", State program "Teacher", the National Doctrine of Education of Ukraine in the XXI century, the National Strategy for the Development of Education in Ukraine until 2021. The same requirements are described in the recommendations of the international community: DeSeCo (Definition and Selection of Competencies: Theoretical and Conceptual Foundations), "Common European Framework of Reference for Languages: Learning, Teaching, Assessment", European Qualifications Framework, "A Memorandum on Lifelong Learning" etc.

The content of the leading educational researches and government documents emphasizes the need of creating the conditions, technologies and methods for the maximum self-identity of participations of educational process. However, as practice shows, there are circumstances that prevent the full manifestation of the individual, his/her self-fulfillment, self-expression and self-organization and activity in intellectual and practical spheres. Such circumstances are barriers that accompany the educational process [1, 3].

A brief review of publications on the subject. There are many views on the nature, essence, functions and types of barriers. Some researches intersect in their substantial parts; others have contradictions in the basic positions. Depending on the approach of understanding the essence of this phenomenon, scientists learn different aspects of barriers. Today, in pedagogical science the problem of pedagogical barrier has not yet fully investigated. However some directions of research are outlined:

- the following types of barriers in the pedagogical process are described: cognitive barriers (L. Gerashchenko, A. Domyreva, N. Marahovska, A. Pylypenko, N. Chernenko); barriers of teachers' professional activity (F. Vafin, I. Glazkova, N. Gorodetska, N. Zahumennyh, A. Markova, S. Nazmetdinova, M. Podymov, A. Safina, N. Chynkina); barriers of creative self-fulfillment of students (K. Karamova); barriers of communication (N. Volkova, O. Zalyubovska); barriers of learning activity (O. Barvenko, T. Verbytska, I. Glazkova, N. Gubarev, O. Gudymenko, N. Drozdov, N. Sopilko, O. Hudobina, N. Chernenko, N. Yakovleva); barriers of socialization (O. Yelnikova); barriers of professional self-identity (A. Massanov);

- scientists focus on the study of conditions of barriers

overcoming in the pedagogical process (T. Ver-bytska, A. Hudobina, L. Yaroslavska), they investigate methods and techniques, which are useful in barriers overcoming (N. Gubarev, N. Marahovska);

- researchers R. Shakurov, N. Chernenko consider a barrier as a source of development of a human personality. The improvement of a person is the result of barriers overcoming.

The problem of cognitive barriers is represented in the various fields of science and it is covered by many researchers. Barriers of cognitive activity as an obstacle in creative search were investigated by B. Kedrov. The problem of cognitive barriers as an integral part of the educational activity received further development in studies of A. Bakulin, L. Gerashchenko, A. Hormina, A. Korzhuyev, A. Domyreva, A. Pylypenko, A. Pinsky, N. Chernenko and others. N. Marahovska, D. Hamblin described the essence of cognitive barriers as difficulties in learning different subjects.

However, it should be noted that the problem of training teachers of humanities to usage of cognitive barriers in their professional activity has not almost covered yet. In our opinion, the question of the most appropriate application of cognitive barriers is still open – scientists have given general theoretical characteristics of this problem.

The goal of the study is to give theoretical substantiation of the essence of pedagogical technology, which provides training of future teachers of humanities to application of cognitive barriers in their professional activity.

Materials and methods. The reform of education in Ukraine is impossible without new researches in the field of the training of pedagogical specialists, because the specifics of the teacher's activity requires the saturation of his/her training with professional technologies that allow them to master the management process of education of the individual. Improving of the professional training of teachers is the purpose and the means of socio-economic and spiritual progress of society. The problem of training of future teachers, forming him/her as a socially active personality is widely covered in the psychological and pedagogical studies of modern scholars [5].

Based on scientific theoretical positions we can say that the readiness of future teachers in pedagogical activity isn't the innate quality of personality but the result of special training in high institution [7]. So, the readiness in application of cognitive barriers by the teachers is presented by structural components. The content of components is caused by the typology of cognitive barriers. In our research we define *the readiness*

of future teachers in application of cognitive barriers in professional activity as an integrated, dynamic formation of a future teacher, the result of his/her training on the basis of theoretical knowledge (the essence of cognitive barriers, their types and functions); practical skills of artificial creation and overcoming of cognitive barriers; personal qualities (barrier resistance) that stimulate, motivate, regulate educational and professional activity by selecting the optimal strategy (creation or overcoming) of cognitive barriers in the pedagogical process.

We believe that the formation of the readiness of future teachers in application of cognitive barriers is provided by the substantiation, development and the step-by-step implementation of the pedagogical technology, which is characterized by interdependent relationships between its elements. The purpose of this technology is to form the mentioned readiness.

Among the structural components of readiness we distinguish motivational, personal, cognitive, practical and reflective components.

The efficiency of the pedagogical technology depends on special conditions, such as pedagogical conditions for the forming the readiness of future teachers of humanities in application of cognitive barriers in professional activity, which are considered as specially created circumstances of the process of training [7]. They are the *result of systematic and purposeful selection, construction, application elements of content, organizational forms, methods and means of education that make the training of future teachers of humanities successful.*

The effectiveness of the formation in future teachers of humanities the readiness in application of cognitive barriers in professional activity is providing by some *pedagogical conditions*: 1) stimulation future teachers of humanities to the educational and cognitive activity; 2) providing special structuring of educational material for future teachers about cognitive barriers and their application in professional activity; 3) ensuring obtaining of practical experience of effective application of cognitive barriers in educational process.

The first pedagogical conditions – *to stimulate future teachers of humanities to the educational and cognitive activity* – was based on the idea that the use of cognitive barriers provides the development of the students' interest to teaching; the motivation to apply cognitive barriers; the desire for success and professional growth; the awareness of the importance of formation of professional skills, including the application of cognitive barriers to educational activity.

The basis of the next condition of training of future teachers of humanities to application of cognitive barriers – *to provide special structuring of educational material for future teachers about cognitive barriers and their application in professional activity* – was the idea that the application of cognitive barriers involves firstly, knowledge of their essence, functions, types, reasons for existence; and secondly, knowledge of essence, main ideas and principles of the creating process of cognitive barriers in professional activity and awareness of the possibilities of their application in the educational process.

The third pedagogical condition – *to ensure obtaining of practical experience of effective application of cognitive barriers in educational process* – involves directly

improving the skills of the application of cognitive barriers to educational processes. The application of cognitive barriers in the educational process, we understood as such organization of lessons, which involves the technology of creation of barriers and active independent work of students to address them.

Thus, the implementation of these pedagogical conditions of the formation in future teachers of humanities the readiness in application of cognitive barriers in professional activity allows firstly, to create a motivational readiness for educational activity; secondly, students receive general and special professional knowledge that reflect the specifics of the application of cognitive barriers in the educational process; thirdly, to form professional skills, necessary for the effective application of cognitive barriers by the future teachers of humanities.

Formation of the researched readiness is carried out in following stages: motivational, procedural, stage of obtaining of experience, analytical and reflexive. These stages do not have hard limits, as it is impossible distinguish a single process, to determine its links binders, however, each component-stage requires appropriate contextual and organizational pedagogical content. Consider them in detail.

Motivational stage is the awareness of the importance and value of the application of cognitive barriers in professional activity, strengthening of positive motives for learning.

Procedural stage marks the formation of knowledge system and skills of future teachers of humanities in application of cognitive barriers.

Stage of obtaining of experience involves the development of practical skills, mobility of knowledge, using them in the process of applying of cognitive barriers, the ability to focus his/her activity on solving the basic challenges of education, manifested in cognitive activity and independence of students. At the stage of obtaining of experience future teachers of humanities acquire not only theoretical knowledge but also practical skills.

Reflective stage ensures the formation of reflexivity of future teachers of humanities as quality that lies in the ability to analyze their own professional activity and based on this analysis to change their activity. In addition, it should be noted that the reflection makes it possible to integrate all acquired knowledge and skills in a holistic personal readiness of future teachers of humanities in application of cognitive barriers in professional activity [2].

Taking into consideration the binary nature of a barrier, we suggest two strategies: the strategy of creation and the strategy of overcoming of cognitive barriers.

We singled out the following tactics: forecasting, promotion, conduct, support, autotraining, co-operation, stimulation and developing tactic in the frame of the strategy of creation and overcoming. Each of tactics involves the usage of certain methods and techniques. The choice of tactics first of all depends on the heterogeneity of participants of the educational process, and also is determined by types of cognitive barriers and situations of the educational process.

Results and discussion. So barriers fulfill a special role in development of personality which can be seen as reaction to the obstacles that prevent life [6]. As well as educational activity at each stage of which there are

cognitive barriers – the parts of each structural component that block cognitive activity, prevent the full and creative expression of the individual, leading to general dissatisfaction with the learning process and low efficiency [4].

But, cognitive barrier also stimulates, encourages and increases the effectiveness of pupils' activity in the educational process through its overcoming (positive function) and it has the binary nature as well as the multi-functional character, so as a pedagogical tool of optimal complexity, it activates educational and cognitive activity of pupils and has a developmental impact on a person [2].

In addition, based on the definition, we can talk about the feasibility of its artificial creation in the education process for further overcoming that promotes activation and dynamism of learning activity.

The analysis of scientific sources and methodological materials allowed determining the condition of training of future teachers of humanities to application cognitive barriers in professional activity. The readiness in application of cognitive barriers in future teacher of humanities in professional activity is defined as a complex, dynamic quality of personality of pedagogue which is characterized by a certain level of formation and functioning in the unity of motivational, personal, cognitive, practical and reflective structural components and determines the level of readiness of future teachers of humanities in application of cognitive barriers in

professional activity.

Conclusions. The defined theoretical propositions proved the importance of readiness of future teachers of humanities in application of cognitive barriers in professional activity. It is considered that the effectiveness of formation of this readiness involves the step-by-step implementation of pedagogical technology of training. This technology has the following essential characteristics:

- it is based on the general didactic and specific principles;
- it depends on the pedagogical conditions;
- it is implemented through the tasks aimed at forming the structural components of the readiness;
- it is achieved through motivational, procedural, stage of obtaining of experience, analytical and reflexive stages involving appropriate strategies and tactics;
- it focuses on the criteria and indicators of levels of the readiness;
- it provides the result in formation in future teachers of humanities of readiness in application of cognitive barriers in professional activity.

Analysis of the research results and pedagogical experiment show positive impact of pedagogical conditions and effectiveness of the pedagogical technology of training of future teachers of humanities in application of cognitive barriers in professional activity.

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Суть педагогической технологии подготовки будущих учителей гуманитарных специальностей к применению познавательных барьеров в профессиональной деятельности

К. А. Сербинова

Аннотация. В статье автор рассматривает содержание педагогической технологии подготовки будущих учителей гуманитарных специальностей к применению познавательных барьеров в профессиональной деятельности, которая включает следующие этапы: мотивационно-ориентационный, содержательно-процессуальный, приобретения опыта и рефлексивный.

Ключевые слова: барьер, когнитивный барьер, педагогическая технология, подготовка будущих учителей, учитель гуманитарных дисциплин.