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Future teachers' training to application of cognitive barriers in professional activities during the Covid-19 pandemic

Навчання майбутніх учителів застосуванню когнітивних бар'єрів у професійній діяльності під час пандемії Covid-19

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Abstract

New challenges for the education system have appeared due to the COVID-19 pandemic that's why it is crucial to improve teachers' training. There are instances that prevent the entire manifestation of the character, his/her self-achievement, self-expression and self-agency. Such instances are barriers that accompany the educational procedure. The aim of the research is to give theoretical substantiation and offer the pedagogical technology, which provides future teachers' training to application of cognitive

Анотація

У зв'язку з пандемією COVID-19 перед системою освіти з'явилися нові виклики, тому важливо покращити підготовку вчителів. Існують обставини, які перешкоджають повноцінному прояву особистості, її самореалізації, самовираженню та самоорганізації. Такі обставини є бар'єрами, які супроводжують освітній процес. Мета дослідження – надати теоретичне обґрунтування та запропонувати педагогічну технологію, яка забезпечує підготовку

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barriers in their professional activities in terms of the pandemic caused by Covid-19. The main hypothesis of the research is the idea that specially organized future teachers' training focusing on the formation of their competence in application of cognitive barriers is the basis of their successful professional activities. The research methodology is built on the dialectical unity of such methods: comparative historical method, genetic method, competence-based method, systemic method, synergetic method. The proposed technology is built on the general didactic and specific principles and is accomplished via motivational, procedural, stage of obtaining of experience, analytical and reflexive stages involving appropriate strategies and tactics. It provides the result in formation of future teachers' competence in application of cognitive barriers in professional activities.

Keywords: teachers' training, cognitive barriers, professional activity, educational process, the COVID-19 pandemic.

Introduction

The complicated and contradictory processes caused by the COVID-19 pandemic created new demanding situation for the education system. The answer of troubles throughout and after COVID-19 calls for enhancing instructors' training. High necessities to the fine of vocational and pedagogical teachers' training are described in government documents of Ukraine "Law on Education", "Law on General Secondary Education", "Law on Higher Education". Such national documents as State program "Teacher", the National Doctrine of Education of Ukraine in the XXI century, the Memorandum on Lifelong Education, National Strategy for the Development of Education in Ukraine until 2021 also emphasizes the importance of teacher training. 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, etc.

The content of the main academic researches and authorities files emphasizes the need of making the situations, technologies and methods for the maximum self-identification of individuals of the educational system. However, as practice shows and spreading of Covid-19 in particular, there are

майбутніх учителів до застосування когнітивних бар'єрів у професійній діяльності в умовах пандемії, спричиненої Covid-19. Основною гіпотезою дослідження є думка, що спеціально організована підготовка майбутніх учителів, спрямована на формування їх компетентності щодо застосування когнітивних бар'єрів, є основою їх успішної професійної діяльності. Методологія дослідження базується на діалектичній єдності таких методів: порівняльно-історичного, генетичного, компетентнісного, системного, синергетичного. Запропонована технологія базується на загальнодидактичних і специфічних принципах і досягається за допомогою мотиваційного, процесуального, етапу набуття досвіду, аналітичного та рефлексивного етапів із застосуванням відповідних стратегій і тактик. Це сприяє формуванню у майбутніх учителів компетентності у застосуванні когнітивних бар'єрів у професійній діяльності.

Ключові слова: підготовка вчителів, когнітивні бар'єри, професійна діяльність, освітній процес, пандемія COVID-19.

circumstances that prevent the overall manifestation of the person, his/her self-achievement, self-expression and self-organization and pastime in intellectual and realistic spheres. Such instances are barriers that accompany the educational system.

The aim of the research is to give theoretical substantiation and offer the pedagogical technology, which provides future teachers' training to application of cognitive barriers in their vocational activities in terms of the pandemic caused by Covid-19.

The object of the article is the process of professional training of future teachers at higher educational establishments.

The subject of the research is the pedagogical technology of future teachers' training to application of cognitive barriers in their vocational activities.

The novelty of the research is the idea that specially organized future teachers' training focusing on the formation of their competence in application of cognitive barriers is the basis of their successful vocational activities.

Literature Review

In everyday educational practice a modern teacher faces the problem of heterogeneous groups. In light of the challenges that teachers have faced during the pandemic, dealing with heterogeneous groups is becoming more difficult. Members of these groups are students with different levels of knowledge, different personal and psychological characteristics, they may be children with disabilities, children from immigrant families and disadvantaged families, they may be representatives of ethnic minorities, etc. So a teacher really should have such competence that will allow him/her to use individualized and differentiated approaches in order to work effectively within a heterogeneous group through distance and face-to-face learning in the time of COVID-19.

The main concepts of education, the issues of future professionals' training are discussed by scientists: E. Terhart (Terhart, 2003), Ayas, A. (Ayas, 2013). Innovations in education are the subject of study by N. Kabus, S. Kara, S. Khatuntseva, S. Knysh, M. Portyan, O. Zhernovnykova, (Khatuntseva et al., 2020), I. Demchenko, B. Maksymchuk, V. Bilan, I. Maksymchuk, I. Kalynovska (Demchenko et al., 2021).

Cognitive functions of the brain and intellectual development of a person in the virtual educational process are covered in the works of A. Chebykin (1992), M. Smulson (2015), A. Olteanu (2019), V.-A. Briciu, A. Briciu (Briciu & Briciu, 2020), Y. Kalinkara (2021)

We see the solution to this problem in developing competence of future teachers in application of cognitive barriers in their vocational activities.

- There are many perspectives on the nature, essence, functions and kinds of barriers. A number of researches disagree on their sizable parts, others have arguments approximately the simple positions (Glazkova, 2013a). Depending on the method of expertise the essence of this phenomenon, scientists distinguish different aspects of barriers. Today, in pedagogical technology the issue of pedagogical barriers has no longer been absolutely investigated. However, some instructions of the studies are mentioned:
- The subsequent forms of barriers within the pedagogical procedure are described: cognitive obstacles A. Domyreva (Domyreva, 2002), A. Pylypenko

- (Pylypenko, 1995); limitations of teachers' expert sports F. Vafin (Vafin, 2004), I. Glazkova (Glazkova, 2013b), N. Gorodetska (Gorodetska, 2009); barriers of innovative self-success of students (Karamova, 2003); barriers of communication (Zalyubovska, 1984); barriers of learning activities (Barvenko, 2004; Glazkova, 2013a; Chernenko, 2000; Yakovleva, 2003); barriers of socialization (Yelnikova, 2004); boundaries of professional self-identity (Massanov, 2014);
- scientists focus at the examine of conditions of barriers overcoming within the pedagogical technique (Verbytskaya, 2003), they investigate tactics and strategies, which are beneficial in barriers overcoming (Gubareva, 2001), (Marakhovskaya, 2002);
- researchers N. Chernenko (Chernenko, 2000) consider a barrier as a supply of development of a human character. The improvement of someone is the result of barriers overcoming; L. Yaroslavskaya, (Yaroslavskaya, 2013), Ye. Zalyubovskaya (Zalyubovskaya, 1984).
- S. Khatuntseva researches the didactic price of pedagogical limitations in the method of formation of destiny instructors' readiness to self-perfection (Khatuntseva, 2015; Khatuntseva, 2016), (Glazkova et al., 2020).

The phenomenon of cognitive barriers is described inside the numerous fields of science and it is included via many researchers. Barriers of cognitive pastime as an impediment in innovative seek have been investigated by B. Kedrov (Kedrov, 1987). The phenomenon of cognitive barriers as an crucial part of the educational activity acquired in addition improvement in studies of A. Domyreva (Domyreva, 2002), A. Pylypenko (Pylypenko, 1995), L. Yaroshchuk (Yaroshchuk, 2019) and others. N. Marakhovskaya, (Marakhovskaya, 2002) described the essence of cognitive barriers as difficulties in mastering different subjects (Glazkova, 2013a).

However, it ought to be cited that the phenomenon of instructors' education of usage cognitive barriers in their vocational activities has no longer been covered yet. We consider that the problem of the most appropriate application of cognitive barriers is still open – scientists have given general theoretical characteristics of this problem (Glazkova, 2013a). But there is a lack of practical recommendations based on pedagogical experiments.

Methodology

The research methodology is built on the dialectical unity of such methods:

- The comparative historical method determines the genesis of the pedagogical barrier; future teacher's competence in preventing and overcoming pedagogical barriers is determined by the functioning of his abilities (psychological, physiological, etc.), which requires their constant study and conscious use;
- The genetic method permits to reveal the essential characteristics of the cognitive barrier, which makes it possible to understand the essence of cognitive barriers in the educational process, provides a socio-cultural analysis of the formation and development of cognitive barriers; future teacher's competence to prevent and overcome barriers is provided by individual potential of a person and external resource opportunities;
- The competence-based method allows exploring the features of cognitive pedagogical barriers during the COVID-19 crisis; the competence to prevent and overcome barriers is an integrated personal new formation that reflects his theoretical and practical readiness to act;
- Systemic method is used for a holistic understanding of the completeness of the use of cognitive barriers by future teachers in their professional activities; the competence to prevent and overcome barriers is a complex system, which is formed of various components (structural, functional) and elements, the functioning of which is ensured by system-forming connections, relationships and factors;
- Synergetic method helps to give the characteristic of cognitive barriers as an open system that changes in accordance with the multifactorial interaction of the processes of self-education, self-perfection and self-development of the future instructor in the context of COVID-19; future instructor's competence in preventing and overcoming pedagogical barriers is the result of the interaction of professional and personal structures, and its formation is connected with conditions of professional activity.

Results and Discussion

Representatives of Organization for Economic Co-operation and Development (OECD) defined

key competences for a a hit life and properly-functioning society based on critical thinking and holistic/included method: *acting autonomously* (ability to guard and assert one's rights, hobbies, duties, limits and desires; potential to shape and behavior lifestyles plans and private tasks; capability to behave within the big image/ the massive context); *the use of tools interactively* (capacity to use a language, symbols and texts interactively; capacity to apply information and data interactively; capacity to use (new) generation interactively); *functioning in socially heterogeneous corporations* (capability to narrate well to others; ability to cooperate; capacity to manipulate and resolve struggle).

According to these points we suppose that teachers with already formed competence in application of cognitive barriers in their vocational activities will be prepared for integration into the educational process of the different categories of students, namely to organize the educational process with heterogeneous groups successfully in the context of COVID-19.

This research is based on the understanding of professional teacher's competence as a certain his/her professional training level. This competence provides the executing of the functions and tasks of professional activities.

The essence of cognitive barriers in an educational process

Built on the analysis of the pedagogical sources, we should mention that the "barrier" is traditionally considered in the context of such concepts as: obstacle, resistance, inhibition, prohibition, blocking, which are restrictive, and attempts to determine it are based mainly on psychological positions, despite the fact that dissertations are made in different specialties of pedagogical science.

For the first time in the scientific sources, the concept "pedagogical barrier" is defined by L. Yaroslavska, (Yaroslavska, 2013) as a complex pedagogical phenomenon caused by internal and external factors and inherent in all subjects of the educational process. The barrier hinders, restrains, reduces the effectiveness and success of this process.

The researcher I. Glazkova (Glazkova, 2013b) states the essence of binary concept "pedagogical barrier". On the one hand, this term is seen as a complicated pedagogical phenomenon that interferes, holds back and reduces the efficiency

and fulfillment of the educational process (negative function), and, consequently, calls for prevention. On the opposite hand, it is far a pedagogical tool that stimulates and increases the effectiveness of the instructional technique of individuals' activity (positive function) through its overcoming.

Thus, based on the definition, we can speak about the expediency of creation of a cognitive barrier in the educational process. But the main condition of its creation is further overcoming. So, a cognitive barrier is a pedagogical tool, which stimulates the development of potential possibilities of an individual and it is characterized by developing nature.

Analyzing and summarizing approaches to the definition of "cognitive barrier", it should be noted that a barrier is a generic term, from which such kind of barrier as "educational barrier" comes. In its turn, a cognitive barrier is a type of pedagogical barrier. According to the binary nature of pedagogical barrier, it is considered as a pedagogical tool, which activates the educational and cognitive activity of the subjects of educational process through its overcoming in the period of the COVID-19 pandemic.

The research is focused on the fact that a cognitive barrier should be impetus for independent work to overcome it and do not cause confusion or frustration in participants of a pedagogical process.

Regarding the classification of cognitive barriers, the analysis of the scientific literature suggests that the phenomenon of typology of cognitive barriers is the most important nowadays. In

general, psychological, pedagogical meanings, they are classified differently, because researchers understand their essence differently, and as a consequence, the classification is based on different approaches.

The development of a typology of cognitive barriers is of important practical value, as the detecting of barriers in the early stages of their manifestation helps to optimize joint activities and increase the effectiveness of learning.

We have identified this classification of cognitive barriers, the main criterion of which is the stage of getting new knowledge. The generally accepted stages are:

- Perception of educational material;
- Processing and interpretation of academic information;
- Reproducing of information, transfer and interference educational activities;
- Creative application of knowledge and skills.

So, according to each level we've got prominent the associated cognitive barriers:

- Barrier of perception of educational material;
- Barrier of processing and understanding of educational information;
- Barrier of reproduction of educational information;
- Barrier of transfer and interference educational activities;
- Barrier of creative application of knowledge and skills (Table 1).

Table 1.
Cognitive barriers and their characteristics.

The type of cognitive barriers	Functional characteristic
<p>1</p> <p><i>1. Barrier of perception of educational material</i></p> <p><i>2. Barrier of processing and understanding of educational information</i></p> <p><i>3. Barrier of reproduction of educational information</i></p> <p><i>4. Barrier of transference and interference of educational activities</i></p> <p><i>5. Barrier of creative application of knowledge and skills</i></p>	<p>2</p> <p>difficulty in recognizing the same but in another form; – frequent misuse of terms; – inability to repeat explanations; – “disconnection” at the lesson; – inability to answer questions during the explanation – inability to retell the material in brief; – inconsistency of the theoretical position with the structure of the theory; – compiling the wrong algorithm for solving the problem; – incorrect explanation of why the task is given, what knowledge it – consolidates; cannot specify a rule that can be followed when performing an exercise – or a task bringing the task under the already known general type; – inability to think when solving a problem; – lack of answers to the teacher's questions that require reproduction and – interpretation of the text indistinguishability of essential signs of action from insignificant, – focusing on external signs, essential signs are perceived as separate and not in full; formation of skills and abilities without full understanding and – awareness of the action; inability to formulate something new that is obtained as a result of – solving the problem weak orientation in non-standard unexpected situations; – refusal of creative work; – lack of desire to independently acquire knowledge of a theoretical – nature; insufficient self-assessment of own achievements in cognitive activity; – lack of desire to form and develop own plan; – inability to see the problem of the task; – weak ability to combine existing knowledge, skills and abilities in – obtaining new ones</p>

Future teachers' competence in application of cognitive barriers in professional activities

Reforming the educational system in the world is not possible without new studies in the area of teacher training, as the specifics of the teacher’s job dictates the need to saturate his/her training with professional methods and knowledge (Glazkova, 2013a). With the help of such technologies the teacher is able to perfect the art of managing the process of education and training of the personality. The problem of professional training of a future teacher and the development as a socially active person is highlighted in pedagogical works of progressive researchers.

On the basis of the theoretical approaches

developed by scientists, we see that the readiness of the future teacher for teaching is not an inborn feature of the personality, but the consequence of special training at universities.

So, teachers’ competence in application of cognitive barriers consists of some structural components. The content of them is determined by the typology of cognitive barriers. In our study we identify *the competence of would-be teachers in application of cognitive barriers in professional activities as an integrated, dynamic formation of a would-be teacher, the result of the training on the basis of theoretical information (the nature of cognitive barriers, their types and functions); practical abilities of artificial creation and overcoming of cognitive barriers; personal traits (barrier resistance) that*

encourage, motivate, modify educational and professional activities by using the most effective method (creation or overcoming) of cognitive barriers in the pedagogical process (Glazkova, 2013a).

We think that the formation of would-be teachers' competence in application of cognitive barriers is supplied by the substantiation, development and implementation of the pedagogical technology, which is characterized by interdependent relationships between its parts (Glazkova, 2013a). The aim of the technology is to form the noted-above competence.

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

The motivational component of competence in application of cognitive barriers is characterized by *interest* in the acquisition of this competency, *needs* to succeed in careers; *value attitude* to prospective of professional activities and acquisition of the competence during the professional training.

The personal component of competence in application of cognitive barriers includes *quality of future teachers* as personalities that enable them to perceive adequately cognitive barriers and to control their own emotional expressions and behavior and quickly choose of optimal tactics for effective application and overcome it.

The cognitive component includes the *system of knowledge* about the nature, typology, function, reasons of cognitive barriers, appearance, tactics of creation and overcoming cognitive barriers.

In the time of COVID-19 the cognitive component is implemented only on the condition of mastering the relevant skills that are translated into *practical component*. The creation, application and overcoming cognitive barriers requires the involvement of different skills (*diagnostic and prognostic, constructional, intellectual, communication*), the choice of which depends on its type. And also, as the key skill of this component we identify the creation of cognitive barriers.

Forming professional competence is impossible without reflexive mechanism that helps penetrate into the internal state, intentions, motives, thoughts and values of another person. Therefore, an important component of competence in application of cognitive barriers is *reflective component* that forms the skills of

introspection and self-assessment of own professional and pedagogical activity and the ability to self-improvement.

Pedagogical technology of future teachers' training to application of cognitive barriers in professional activities

The effectiveness of the pedagogical technology depends on certain conditions.

Pedagogical conditions for the forming the future teachers' competence in application of cognitive barriers in professional activities are determined as deliberately created circumstances of a training process. They are the *result of systematic and careful choice, construction, application elements of content, organizational forms, methods and means of education that make the future teachers' training successful*.

The effectiveness of the formation of would-be teachers' competence in application of cognitive barriers in professional activity is achieved if there are certain *pedagogical conditions* such as:

- stimulation would-be teachers to the educational and cognitive activities;
- special arranging of theoretical information for future teachers about cognitive barriers and their usage in professional activities;
- encouragement of gaining practical experience of effective use of cognitive barriers in an educational process (Glazkova, 2013a).

Substantiating the first pedagogical condition - the creation of future teachers' positive motivation to educational and cognitive activities - is based on the idea that the use of cognitive barriers involves the stimulation of students' interest in future teaching; motivation to use cognitive barriers; ambition for success and professional growth; awareness of the necessity of the development of professional skills, in particular in the use of cognitive barriers in teaching during the pandemic COVID -19.

The second condition of would-be teachers' preparation for the use of cognitive barriers is providing a special structuring of educational material aimed at ensuring that future teachers master the information about cognitive barriers and their usage in professional activities.

This condition is based on the idea that the use of cognitive barriers means, firstly, knowledge of their nature, functions, kinds, causes of existence; secondly, knowledge of the nature,

basic ideas and principles of the process of creating cognitive barriers in professional activities, as well as awareness of the opportunities of their usage in the educational process.

The third pedagogical condition – ensuring the acquisition of practice in the proper use of cognitive barriers – involves the direct improvement of skills in the use of cognitive barriers in the educational process.

By the use of cognitive barriers in the educational process, it is seen the organization of educational activities that include the technology of creating barriers under the guidance of the teacher and the independent activity of students to overcome them.

The set of pedagogical conditions is realized through the structural and functional technology of future teachers' preparation for using cognitive barriers in professional activity that defines dialectical unity, interrelations and relations between the purpose of training, pedagogical conditions, stages of preparation (motivational-orientational, semantic-procedural, gaining experience, reflexive), components of the readiness of future teachers to apply cognitive barriers in professional activities (motivational-value, personal, cognitive, activity-practical, reflexive), learning outcomes).

The structure of pedagogical technology of formation in would-be teachers the competence

in application of cognitive barriers in their professional activities is represented in the picture (Fig. 1).

The formation of the mentioned-above competence has the following stages: motivational, procedural, stage of obtaining of experience, analytical and reflexive.

The stages do not have rigid boundaries, because it is not possible to distinguish a single process, to determine its connecting links, however, each component-stage needs appropriate content and organizational pedagogical content.

Motivational and value stage – the point of awareness of the necessity of the usage of cognitive barriers in professional activities, the consolidation of positive learning motives.

The substantive-procedural stage involves the formation of a system of knowledge, skills and abilities of would-be teachers.

The stage of gaining experience includes the improvement of practical skills, mobility of knowledge, their operation in the application of cognitive barriers, the competence to focus their activities on solving the main tasks of educational and cognitive activities, which is represented in cognitive activity and independence of students. At the stage of gaining experience, would-be teachers acquire theoretical knowledge as well as practical skills (Glazkova, 2013a).

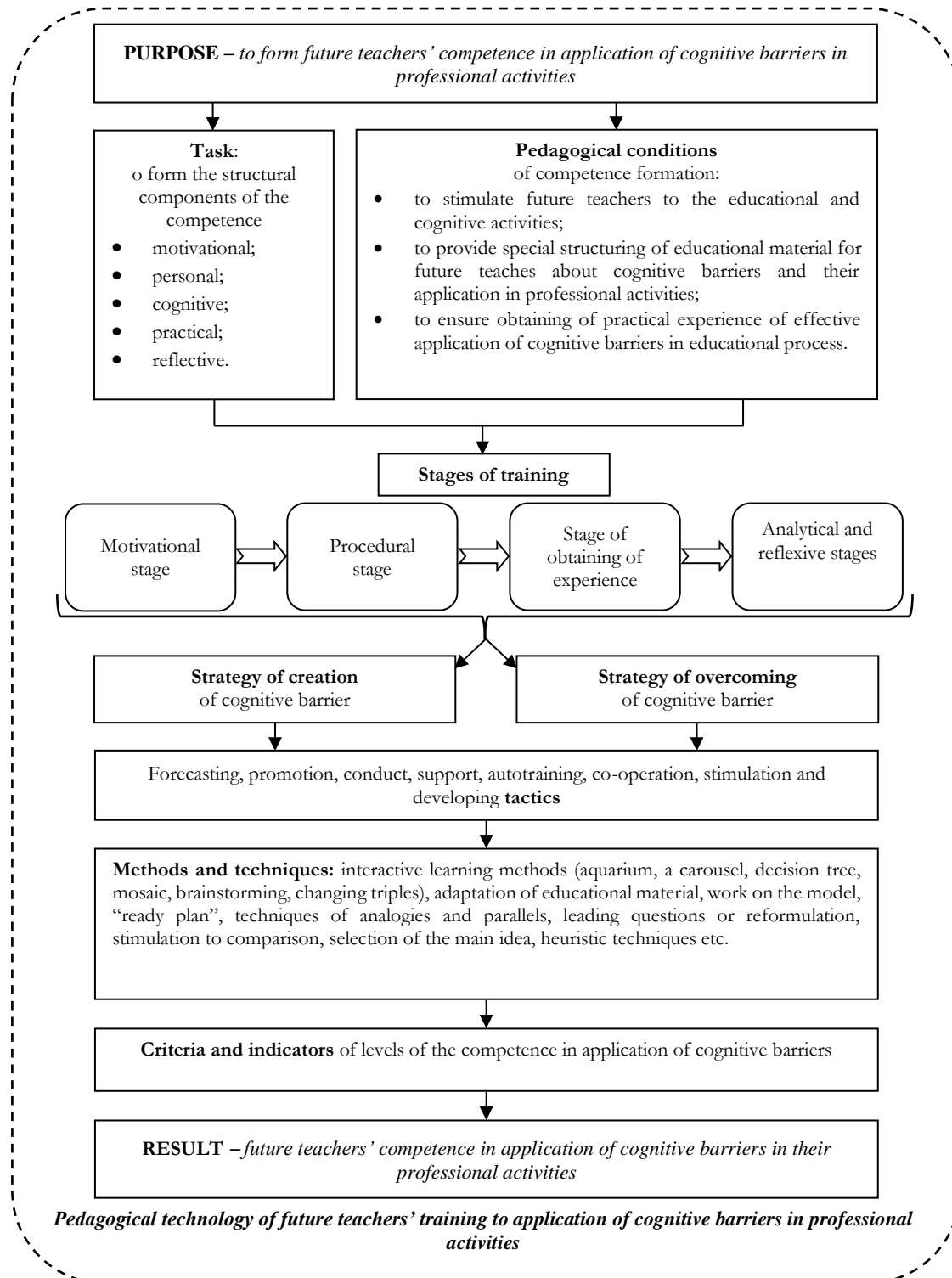


Figure 1. Pedagogical technology of would-be teachers' training to application of cognitive barriers in professional activities.

The reflexive stage provides the formation of future teachers' reflexivity as a quality, which involves the competence to analyze own professional activities and to change on the basis of the analysis of the activity itself. Moreover, it should be said that reflection allows integrating

of all the acquired knowledge, skills and abilities into a holistic personal development, which is the future teachers' readiness to apply cognitive barriers in professional activities.

Taking into account the binary nature of a barrier, we propose two strategies: the strategy of creation and the strategy of overcoming of cognitive barriers (Glazkova, 2013a).

We highlighted the following tactics: forecasting, promotion, behaviour, support, autotraining, co-operation, stimulation and developing tactic in the frame of the strategy of creation and overcoming. Each of tactics includes using appropriate methods and techniques (Glazkova, 2013a). The choice of tactics depends on the heterogeneity of individuals of the educational process, and also is determined by sorts of cognitive barriers and situations of the educational process in the time of pandemic.

Thus, above-mentioned theoretical points have been used to prove the important role of the future teachers' readiness to apply cognitive barriers in professional activities. It is stated that the efficiency of its formation is provided by the developed step-by-step technology.

Conclusions

Having analyzed and generalized the approaches to the definition of the concept "cognitive barrier" by scientists, it should be noted that the barrier is a generic concept from which such a type as "pedagogical barrier" originates. In turn, the cognitive barrier of educational activity is a type of pedagogical barrier, which in addition to the binary essence, also has a multifunctional character, due to which, as a teaching instrument (subject to optimal complexity), it boosts educational and cognitive activity of students during the COVID-19 pandemic and has a developmental impact on the individual.

The mechanism of the cognitive barrier is the mobilization of internal resources, which causes deviations from regulatory activities and stimulates the restructuring of the psychological structure of the individual. Cognitive barriers arise where there is a mismatch between the existing knowledge system and the new requirements.

Depending on the criteria that researchers put forward for the formation, functioning or impact of cognitive barriers on educational activities, there is a wide variety of these barriers. We believe that within the educational activities of students, the main criterion of the typology of cognitive barriers should be the procedural component of the stages of learning new knowledge. It is also appropriate to mention

natural barriers that appear forthwith (spontaneously) and synthetic ones that are built pedagogically and purposefully.

Taking into account the existing classifications of cognitive barriers, as well as the procedural component of subjective difficulties in students' learning activities during a pandemic, we have identified such a classification, the main criterion of which is the stages of learning new knowledge. Such stages include perception of educational material, clarification and understanding of educational material, reproduction of information, transference and intervention of educational setting, creative application of knowledge and skills. The corresponding cognitive barrier is determined to each of these stages, in particular: the barrier of perception of educational material; the barrier of processing and comprehension of educational information; the barrier of reproduction of educational information; the barrier of transference and interference of educational activities; the barrier of the creative application of knowledge and skills.

Teacher's readiness to use cognitive barriers in professional activities is interpreted as a complex, dynamic quality of the teacher's personality, which is characterized by a certain level of formation and functioning in the unity of motivational-value, personal, cognitive, activity-practical and reflective components and determines the level of teachers' preparation for applying cognitive barriers in professional activities (Glazkova, 2013a).

Thus, barriers play a specific role in the advancement of an individual. They can be considered as the body's response to obstacles that interfere with life. Learning activity is no different as at each phase of which there are so-called cognitive barriers - components of which of its component that block cognitive process, avert the full expression and original self-expression of the individual, lead to general displeasure with receiving new knowledge and low efficiency. In turn, the cognitive barrier also motivates, encourages, raises the effectiveness of the pedagogical activity (positive functions) by combating it and in addition to the binary essence has a multifunctional nature, so that, as a teaching instrument of optimal complexity, it boosts educational and cognitive student activities and has a developmental influence on the individual. What is more, based on the definition, it is momentous to note the feasibility of its synthetic creation in the learning process in order to overcome it in the long term, which

contributes to the activation and dynamization of educational activities.

Thus, the application of certain pedagogical conditions for the preparation of potential teachers for the use of cognitive barriers in professional activities, firstly, will form a motivational and value readiness to carry out such activities; secondly, it will give an opportunity to students to get general and vocational knowledge that reflects the special features of the use of cognitive barriers in the educational process; thirdly, it will mode the professional skills and abilities which are necessary for the effective application of cognitive barriers (Glazkova, 2013a). Adhering to set pedagogical conditions, the result of such training is the guaranteed achievement of the main goal - future teachers' readiness to apply cognitive barriers in professional activities.

So, the proposed technology has such characteristics given below:

- it grounds on the general didactic and specific principles;
- it hinges on the pedagogical conditions;
- it is translated through the tasks focused on forming the structural components of the competence;
- it is received through motivational, procedural, stage of obtaining of experience, analytical and reflexive stages involving appropriate strategies and tactics;
- it is based on the criteria and indicators of levels of the competence;
- it expands future teachers' competence in application of cognitive barriers in professional activities.

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