

■ ■ ■ On Adaptation of Specialists without Pedagogical Education to Educational Activities

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Abstract. The main task of professional pedagogy is the training of specialists capable of ensuring safe and effective operation of a particular enterprise. This task is not new, but it requires constant attention owing to the rapid development of the most sectors of the economy, the need for constant updating of technical information, due to its rapid obsolescence, limits the possibilities of self-education in the field of professional pedagogy and psychology. Currently, technical universities are almost half staffed by professors and teachers who do not have pedagogical education. In addition, technical universities are increasingly attracting specialists from industries, those who can really share their experience and knowledge, but they also do not have pedagogical education. To some extent, this problem is solved by postgraduate education. But psychological and pedagogical training of postgraduate students and applicants is often optional.

In scientific and pedagogical literature the professional education of a teacher in postgraduate education is considered as a process of development of certain competencies, providing the possibility of high-quality implementation of the educational process. At the same time, external and internal factors, such as frequently changing Federal educational standards, social events, various regulations, etc. determine the need for the training of a teacher with not only special knowledge, but also a specialist with creative potential and striving for continuous professional self-improvement.

The article deals with the issues related to professional development of teachers who do not have pedagogical education, their adaptive readiness for pedagogical activity. The necessity of such training is determined and its main directions are shown.

Keywords: pedagogical education, professional adaptation, situational and functional approach, professional development

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Urgency of pedagogical training of technical specialists

In the context of economic development, technical universities play a huge role in the training of engineering and technical personnel capable of developing high-tech

industries, ensuring the competitiveness and defense capability of the state. Currently, there is a clear contradiction between the high level of requirements for the level of competence of teachers, providing the educational process and often their limited knowledge in the field of pedagogy. Most of the specialists who start teaching at universities are confident that the pedagogical experience will appear over time, by trials and errors, and there are some, who believe that it is not needed [Higham, Yeomans; Binde; Knowells (1996); Knowells (1973); Makashina, Filatova]. At the same time, it is obvious that for the successful activity of teachers who do not have pedagogical education, psychological and pedagogical training is necessary.

Pedagogical competence is the quite capacious concept, which includes knowledge of the main pedagogical categories, laws and principles; understanding of the pedagogical essence of the phenomena; the ability to analyze, design, plan and perform actions aimed at the development of personal qualities and both at themselves, and participants while educational activities. But it is important to remember that teachers, who graduated from non-pedagogical faculties, have such qualities either intuitively, spontaneously, or through self-education.

The task of improving the professional level of teachers, the formation of the pedagogical staff continues to be relevant, especially in view of conditions of the education system modernization in Russia.

Attracting graduates of technical universities and industrial specialists to teaching in higher schools requires the creation of conditions for the effectiveness of the process, improving their professional skills. These conditions include:

- restructuring of the process of technical training, taking into account the integration of technical and pedagogical education;
- the use of effective technologies to improve professional skills, taking into account the characteristics of the contingent of students, experience of their teaching and production activities, terms of training, financial base, etc.

The implementation of these conditions will ensure a higher level of training and adaptation of specialists without pedagogical education.

Speaking of readiness for teaching, we mean not only the functioning, the relationship of the individual with a wide range of external circumstances, but also their development, their self-actualization [Boyatzis; Makashina (2014); Makashina (2015); Makashina (2017); Skinner; Makashina, Filatova].

It is important for teachers not only to transfer the experience gained in the industrial enterprises, but also to develop modular educational programs with a focus on the competence-based result of training of future specialists. They should know the basic pedagogical theories, be able to distinguish methods, forms and means of education at the undergraduate and graduate levels, to possess active and interactive forms of teaching, to be able to organize research, project and other independent activities of students.

At present, the system of postgraduate professional education is very active one. It includes training of post-graduate students who get additional qualification «Teacher of higher education», and professional development of teaching staff in institutes, faculties of professional development courses, in the centers of engineering

pedagogy. However, psychological and pedagogical training of post-graduate students is optional. Professional development of teachers is carried out mainly traditionally, and in technical universities getting of psychological and pedagogical competence is often underestimated, which leads to negative results.

The above mentioned gives us reason to believe that it is necessary to create certain conditions for graduates of non-pedagogical departments, and for specialists involved in the educational process to ensure their adaptation to teaching. Adaptation is correlated with the process of socialization, when there is an assimilation of social experience, and the reproduction of the system of social relations of the individual. At the same time, these concepts are not identical. They differ on the basis of the method, the way in which the socialization and development of the specialist's personality is carried out. Socialization is a goal and it is implemented by means of individuals' adaptation to the social environment. In the process of adaptation for the purpose of socialization, the most valuable features and traits of the individuals are developed, which can give them the opportunity to feel comfortable in new environment for them, in this case, in teaching activity.

Conditions for adaptation of specialists without pedagogical education to educational activities

The process of creating conditions for the adaptation of specialists who do not have pedagogical education to teaching activities is quite specific one. It means, first of all, the adaptation of personality, personal characteristics and qualities to a specific space of the certain University. At the same time, the content and vector of adaptation to the socio-psychological, psychological, psychophysiological levels of human organization is largely determined by the personal features and character.

Adaptation readiness of specialists without pedagogical education for educational activities is considered by us as their possession of a set of special knowledge to ensure effective performance in the new conditions for the production of professional duties at the University. Adapting, a person actualizes and implements a variety of roles and functions, reveals his individuality, his professional and personal potential, his spiritual and physical abilities.

Among the criteria of adaptation readiness for a new professional activity the following are usually distinguished: success, conflict-free communication, satisfaction with their position, the corresponding state of health and much more.

Adaptation fits into the individual time continuum of life of any person. In the course of life, each person masters a variety of adaptive programs, but this does not mean that adaptation is reduced only to maintaining the balance of man with the environment. The need motivates the person to discovering their potential in life.

Implementation of adaptation processes and programs is quite complicated if there is a lack of formation of certain components of personal regulation. That is why in a number of extreme situations that poses a threat to life or prestige, there is a need for psychological and pedagogical assistance. The question in this case is the choice of means adequate to the individual characteristics of the individual.

Based on the fact that the typical forms of adaptive behavior that ensure the preservation of internal human reserves, are especially clearly disclosed in the field of interpersonal interaction, we consider it appropriate to rely on the situational and functional approach to the analysis and construction of the educational process, proposed by G. Malinotchka and, developed in the works of I. Makashina, I. Marichev, etc. [Makashina, Malinotchka; Malinotchka; Marichev].

The situational and functional approach allows consider the phenomena of training and education from a special position, to identify and justify the patterns of activity of its participants. According to E. G. Malinotchka, the component of education is formed or developed in the course of the functional system. In educational interaction there are two essential participants – a teacher and a student. The minds of each of them contain an action center. The teacher gives the student information about the current or given educational situation and the task (tasks) that he wants to be performed (solve) This information comes in the minds of student where (in memory) there is the educational information mastered by him and it is destiny (managing activities) component of a personality, driving tools of changing the objects of education [Makashina: 9].

Then the student's actions change its object, bring it into a new state. Functional information about this state comes to the student and to the teacher. But it is not essential, the educational process is not created to transform this object. To change the manifest object features, information of which is postponed in consciousness of the student. This is the essential information of the educational process, for which it is carried out, enriching the consciousness of the student, so that the next action with him he performs at a higher level of competence. Functional information helps the student to appreciate the essential result, and the instructor advises that the student corresponding to the action performed, but also on the correctness of its implementation [Makashina: 9].

To ensure the functioning of the educational process aimed at the formation of adaptive readiness of graduates of technical universities or those who came from industrial enterprises to teaching activities, adequate conditions to ensure the participants of educational interaction with the necessary resources, acting in the form of adequate conditions must be created. Their source can be the experience gained by practical teachers [Makashina, Malinotchka; Malinotchka; Marichev].

The educational process aimed at the formation of adaptive readiness of specialists for teaching begins with the creation of an adequate situation. The educational situation must be based on the analysis of their future professional pedagogical activity.

Functional blocks are identified as components of the activity system, as reflected in their structure are the main components of real activity.

The situation of the process of formation of adaptation readiness of specialists for teaching consists of three blocks.

The first block is the readiness of students to actions on the formation of adaptive readiness of students to teaching. One of its components reflects the need of the University, and with valuable experience and professional expertise.

The next component of the first block is the current knowledge of the student (a set of knowledge, skills and other qualities of the individual, which he owns to the

beginning of training). In addition to the above, there is an emotional content. Any actions performed by the person have an emotional color (like, dislike, interesting, boring, etc.). The contradiction between the desired and the actual is reflected in the corresponding emotional experiences, stimulates the motivational function and contributes to the development of adaptive readiness of specialists to teaching.

The reasons for motivation of a specialist to prepare the educational actions can be: direct interest to pedagogical role in life, its relevance to the labour market; awareness of the importance of the resulting knowledge to achieve certain goals in life; the desire to experience and to demonstrate abilities; the desire to take place in the hierarchy of social relationships; the desire to improve oneself, etc.

The current knowledge represents the state already formed at the beginning of the current transformative action and ready for the changes set by the teacher.

The second block of the model is represented by the readiness of the teacher to the formation of adaptive readiness of students to pedagogical activity and consists of three components. The first component is pedagogical education. The teacher should not only have a special education, including knowledge of psychological and pedagogical disciplines, but also possess new technologies, forms, methods, techniques, means of training and education, possess the skills of interdisciplinary organization of the learning process.

Pedagogical education involves professional competence and sustainable motivation for professional creativity; the ability to organize the search for cognitive activity of students in all types of classes; the ability to organize the relationship of the content of disciplines with the methods and means of creative activity; practical experience in solving creative professional problems; the ability to link the content of training with the issues of the industry.

Another component of this integral unity – the teacher's readiness – is awareness of the current state of the formed quality at students. On the basis of their pedagogical education and awareness of the state of the quality of the trainees formed the teacher creates an educational program of actions. It consists of a set of knowledge about the final state of adaptive readiness of the student to teaching and action transformation of their profile. Methods, means and forms of organization of training, methods of stimulation and motivation of the student's personality in the learning process are involved in the system selectively, depending on the purpose, ensuring the functioning of the entire system.

The third block is presented by means of formation of adaptation readiness of students to pedagogical activity and consists of the content of knowledge and tools of their transformation. The first component includes the state (final, programmed) of the formed traits of students and information (textbooks, manuals, educational films, etc.).

The final state of the formed traits of the trainees at the current stage is determined aimed at the type of their future activities and taking into account the training system, where this readiness develops and is formed. The final, programmed state of the formed traits is considered as an integral personal education, assuming the ability to think independently and make non-standard decisions in situations of professional activity.

The second component includes: means of changing the manifestations of students' pedagogical knowledge and means of awareness of projected changes in the manifestation of knowledge of the profession. These groups of aids cover a wide range of material and ideal means of training. Dedicated groups of aids exist in relationships and interdependencies. Their totality is environmental in nature and provides an opportunity for educational action.

The set of readiness of the student to educational actions, readiness of the teacher to the formation of the named quality and means of its formation is the readiness of the process of formation of adaptation readiness of students to pedagogical activity, the state in which the participants of the process and the means of activity are ready to perform actions aimed at further development of the person.

The components of the structure of this educational situation aimed at formation and development of adaptive readiness of students to teaching activities are present at every moment of the process. The disappearance of any of them leads to the disappearance of the process. However, on the other hand, this process exists to make one of these components disappear. This is the idea of this process. Components of the situation when performing actions do not change their formal, «conditional» purpose. However, their content is changing. This process is created in order that in it there was an enrichment of the current adaptation readiness trained to pedagogical activity, the maintenance of the set purpose. When it fully enters the current education of the student, the goal disappears, and at the same time the whole situation disappears and the process stops. Then usually a new goal is set and a new situation is created.

The links between the blocks of the presented system are functional, ensuring their interaction in achieving the goal-readiness of the process of formation of adaptive readiness of students to teaching. During the process of formation of the system its component composition is determined, development of established functional relationships among the components is observed. Moreover, there is development of individual components in terms of achieving the goal. In this pedagogical system all its main functions are realized: educational and developing. The dominant is the educational function. The result is an organic part of it, influencing the formation of the system, its functioning and transformation in it.

A clear organization of the educational functional system in the process of formation of adaptive readiness of students to teaching, allows focus on changes in the requirements for the level of specialist in connection with the development of the education system, and the pace of assimilation of the material. The influence of individual components of the model can be changed under different circumstances, however, there is a self-organization of the system, which ultimately leads to the formation of adaptive readiness of students to teaching.

Thus, the educational functional system of formation of adaptation readiness of students for pedagogical activity is a dynamic morphological arrangement of all its components, selectively combined to achieve a aimed result.

The personality of the student is an integrated phenomenon, the basis of the formation and development of which is the psychophysiological mechanism of

regulation, which consists in the synthesis of educational information. Therefore, the educational functional system of formation of adaptive readiness of specialists for pedagogical activity is both a mechanism and a complex means of their training.

The conditions of the organization of the process of their preparation include: a) the creation of a situation consisting of the simulation of the pedagogical task, the current education of the student, the readiness of the program and the means of performing quasi-professional actions; b) the implementation of these actions, tracking their current results, correction and further development on their basis; C) application of modern forms, methods, means of educational process (material and ideal means, information technologies, distance learning, creation of conditions simulating future industrial relations) [Makashina, Malinochka; Malinochka; Marichev].

As criteria for adaptation, we highlight the following: (a) methodological support; (b) research activity; (c) educational effectiveness; (d) comfortable psychological state of a person.

The level of adaptive readiness is determined by the generalized criterion of adaptation-productivity: passive, medium-active and productive. Adaptive improvement of the teacher takes place at all stages of his professional activity.

Summing up the above, we consider it necessary to note that ways to optimize the process of formation of adaptive readiness of students for teaching activities are:

- use of the educational functional system in the process of formation of a certain, aimed trait;
- methodological assistance to specialists who do not have pedagogical education and start teaching activities;
- interaction of experienced and novice teachers in seminars, pedagogical laboratories, etc.

Conclusion

The process of adaptation of the individual is associated with an increase in its activity, with the formation of his new personal traits.

The system of additional professional education is considered as a resource of the system of continuous education, which allows effectively form the psychological and pedagogical competence of teachers of technical Universities due to the available opportunities, including, among other: the Bank of innovative pedagogical achievements, various programs, material base, etc. All mentioned allows intensify the educational process by means of modern educational technologies, in a shorter time to achieve the actual result in the form of formed competencies of students, etc.

Global social changes affect a wide range of professional and personal characteristics of a person. Transformation of the adaptive capacity reflects the mastery of personality previously unknown aspects of interaction with the surrounding reality, which leads to the emergence of a new type of adaptive personality. In this regard, the proposed approach can facilitate and optimize the process of adaptation of a specialist, which will result in qualitatively new achievements.

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■ ■ ■ Об адаптации специалистов без педагогического образования к преподавательской деятельности

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Аннотация. Основной задачей профессиональной педагогики является подготовка специалистов, способных обеспечить безопасную и эффективную работу конкретного предприятия. Данная задача не является новой, но требуют постоянного внимания. Быстрое развитие большинства отраслей народного хозяйства, необходимость постоянного обновления технической информации, из-за быстрого ее устаревания, ограничивает возможности самообразования в области профессиональной педагогики и психологии. Технические вузы почти на половину укомплектованы профессорско-преподавательским составом, не имеющим педагогического образования. Кроме того, технические вузы все больше привлекают специалистов с производства, тех, кто реально может поделиться своим опытом и знаниями, но они также не имеют педагогического образования. В какой-то мере эту проблему решает постдипломное образование. Но психолого-педагогическая подготовка аспирантов и соискателей часто носит факультативный характер.

В научно-педагогической литературе профессиональное становление педагога в постдипломном образовании рассматривают как процесс развития у него определенных компетенций, обеспечивающих возможность качественного осуществления учебного процесса. Вместе с тем, внешние и внутренние факторы, такие как часто меняющиеся федеральные образовательные стандарты, социальные изменения, различные регламенты и др. обуславливают необходимость формирования педагога, обладающего не только специальными знаниями, но и творческим потенциалом и стремящегося к постоянному профессиональному самосовершенствованию.

В статье рассматриваются вопросы, связанные с повышением квалификации педагогов, не имеющих педагогического образования, их адаптационной готовности к педагогической деятельности. Обосновывается необходимость такой подготовки и показаны её основные направления.

Ключевые слова: педагогическое образование, профессиональная адаптация, ситуационно-функциональный подход, постдипломное образование

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