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## FORMATION OF PROFESSIONAL MOBILITY AS A CONDITION OF FUTURE HANDICRAFTS TEACHERS' TRAINING TO INNOVATIVE EDUCATIONAL ACTIVITIES

*The dynamic development of modern society, a short life cycle of new high-tech industries, modification of not only separate technologies, but also the groups of technologies require an equally rapid awareness of the need for new professionals and upgrading of existing models of training which involve the formation of mobile qualified handicrafts teachers, who inhere dynamism, constant search, commitment to learning and innovation both in teaching and technological activities. The formation of professional mobility of future handicrafts teachers should be considered as mutually agreed system of psychological, pedagogical and methodological procedures governing joint training activities of teachers and students and positively influencing the formation of their readiness for innovative educational activities.*

*In the context of the abovementioned issue we considered scientific and educational aspects of the future teachers' occupational mobility formation as one of the important conditions of the preparation for innovative educational activities and further professional development. Using a set of research methods, organizational and methodical ways were proved, the most advanced, in our view, practical approaches: adaptive, training, assessment and corrective were singled out.*

*It is determined that, study of the formation of occupational mobility as a condition for training of future handicrafts teachers for innovative educational activities requires further definition and scientific substantiation, namely: an organizational process (logistics of universities, the organization of the educational process, practices); semantic nature; special resources (teaching and learning materials); staffing; monitoring the quality of training.*

**Keywords:** professional mobility; innovative educational activities; future handicrafts teachers; professional competency.

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## ФОРМУВАННЯ ПРОФЕСІЙНОЇ МОБІЛЬНОСТІ ЯК УМОВА ПІДГОТОВКИ МАЙБУТНІХ ВЧИТЕЛІВ ТЕХНОЛОГІЙ ДО ІННОВАЦІЙНОЇ ПЕДАГОГІЧНОЇ ДІЯЛЬНОСТІ

*Динамічність розвитку сучасного суспільства, короткий життєвий цикл нових високотехнологічних галузей, модифікація не просто окремих технологій, а цілих груп технологій передбачає настільки ж швидке усвідомлення потреби в нових фахівцях а й модернізацію існуючих моделей підготовки кадрів, що передбачає формування професійно-мобільних кваліфікованих учителів технологій, яким притаманні динамічність, постійний пошук, прагнення до вивчення і впровадження інновацій не тільки у педагогічну діяльність, але і у технологічну. Процес формування професійної мобільності майбутніх учителів технологій необхідно розглядати як взаємозгоджену систему психологічних, загальнопедагогічних та методичних процедур, що регламентують спільну навчальну діяльність викладачів і студентів й позитивно впливають на формування їхньої готовності до інноваційної педагогічної діяльності.*

*У контексті означеної проблематики розглянуто науково-педагогічні аспекти формування професійної мобільності майбутніх учителів технологій як однієї з важливих умови підготовки до інноваційної педагогічної діяльності та подальшого професійного розвитку. З використанням комплексу методів дослідження обґрунтовано організаційно-методичні шляхи, виокремлено найбільш перспективні, на наш погляд, практичні підходи до її поетапного розв'язання у контексті формування готовності студентів до професійної мобільності: адаптаційний, навчально-тренувальний, оціночно-корекційний.*

**Ключові слова:** професійна мобільність; інноваційна педагогічна діяльність; майбутні учителі технологій; професійна компетентність.

**Introduction.** Ukraine's integration into European and world community, modern level of social development, modernization of productive, social, economic and educational spheres, rapid introduction of new technologies and many other

factors contribute to the emergence of a dynamic labor market, which not only creates certain requirements for specialists, but also initiates the emergence of new ways of professional activity.

These issues are particularly relevant in the

context of future handicrafts teachers training for innovative educational activity, as far as technological education is characterized by variability of educational modules and methods. Therefore there is a problem of creation of educational system in which future handicrafts teachers not only get knowledge necessary for their mobile behavior but also acquire competencies that enable them to build individual strategy of innovative educational activity and successfully realize their potential in an unstable labor market of information society.

**The analysis of recent researches and publications** shows that scientists have considered the problem of future specialists' professional mobility in various spheres of activity: economic (E. Ivanchenko, N. Kozhemyakin, I. Zabirow etc.), technical (S. Kaplina, O. Malygina, L. Nichuhovska etc.), educational (L. Amirova, Y. Dvoretzka, L. Goriunova, B. Ihoshev, M. Ihosheva, O. Nikitina, I. Nikulina, R. Prima, V. Slastonin etc.); general principles of professional mobility (I. Dychkivska, E. Ivanchenko, Z. Kurlyand, E. Sayfutdynova, V. Tomashkevych, I. Udalova, V. Voronkova, E. Zeyer etc.); forming the professional competence as the basis of future professionals' mobility development in terms of continuous higher education (R. Dave, S. Goncharenko, N. Nychkalo, A. Verbitsky, E. Zeyer, I. Zimnyaya, etc.).

Despite numerous scientific works connected with the research of professionals' mobility, it should be noted insufficient attention of scientists to learning organizational and methodical ways of forming professional mobility of future handicrafts teachers in the context of their preparation for innovative educational activity.

**The aim of the research.** To analyze the basic principles of professional mobility development, and organizational and methodical ways of future handicrafts teachers' preparation for innovative educational activity in the context of modern transformations.

**The objectives of the research:** to reveal different tendencies of professional mobility background as a separate scientific definition; to clarify organizational and methodical ways of future handicraft teachers' professional mobility in the context of their preparation for innovative educational activity.

**Methodology.** To solve these issues a set of theoretical (analysis and synthesis of educational, psychological and scientific literature for comparison, comparing different views on the issue under study) and empirical (interviews, observation of students' activity, analysis of educational plans and programs aimed at defining the level of occupational mobility readiness of future handy craft teachers nowadays) research methods were used.

**Discussion.** The success of innovative education is largely determined by the willingness of future handicrafts teachers to work in innovative continuous mode; flexible, mobile and quick response to changes occurring in educational field "Technology", in State Standards of basic and complete secondary education, and vocational technical education, at labor market and information environment. That's why the occupational mobility of future handy craft teachers is one of the important factors of their readiness for innovative educational activity.

Studying of the scientific literature (B. Igoshev, 2008 [1]; R. Prima, 2009 [2]; J. Schwille, & M. Dembel & J. Schubert, 2007 [3]; Villegas-Reimers, 2003 [6]) allowed us to identify the existence of different approaches to the definition of term "occupational mobility" in sociology, psychology and pedagogy.

The term "social mobility" was introduced into science by P. Sorokin to indicate the movements and changes within the social space as "any transition of individual or social object (value), or everything that is created or modified by human activity, from one social position to another". The author has defined two types of social mobility: horizontal and vertical (P. Sorokin, 1992) [4, 376]. Sociologists, mostly pay attention to changes of: the functions of objects in occupational structure; hierarchically and functionally organized elements of social structure (classes, layers, groups and categories of the population) (S. Makeev etc.); one profession to another due to external circumstances (lack of jobs, low salary, etc.).

In psychological research the professional mobility is considered as an integral part of individual competitiveness. The peculiarities of professional mobility are defined as a result of self-improvement in the context of professional growth problems (E. Zeyer, G. Klimov, A. Markov, L. Rybnikova, L. Shevchenko, E. Zeyer etc.).

In pedagogical research the occupational mobility of future specialists is considered in various aspects, namely: as integrated quality of individual necessary for a successful life in the modern labor market (O. Bruhalska, I. Dychkivska, L. Goriunova, E. Ivanchenko, O. Nikitin, M. Oliynyk, V. Petruk etc.); change by a group or individual of the position or place which the individual holds in the occupational structure (S. Lipset); transition of specialists from one professional groups to another providing vertical (movement in professional qualification structure) and horizontal occupational mobility (social movement without changing professions and qualifications) (V. Voronkova); willingness and ability of experts to work in conditions of dynamic changes within their specialization (V. Bordovskyy, Y. Bychenko, N. Kozhemyakina, A. Malygina, etc.), mastering new equipment and

technologies, obtaining additional knowledge and skills that provide the efficiency of professional activity (N. Anisimova, S. Vishnyakova, S. Vershlovskyy etc.); part of professional competence and readiness to solve non-standard tasks and problems (R. Arnolds, A. Shelton, I. Shpakina etc.).

While learning the readiness of future handicrafts teachers for innovative educational activity, we follow the B. Ighoshev (2008) [1, 56] opinion, who notes that focusing on a particular professional activity is typical for professional competence, while professional mobility provides the willingness of an individual to change the field of professional activity.

Thus it can be confirmed that occupational mobility and competence of future handicrafts teachers are interrelated: professional competence is the reason of forming occupational mobility, and the occupational mobility contributes to forming professional competence. Both professional competence and occupational mobility include the personal characteristics, which are determined in accordance with the values and priorities of the individual. However, the term "professional mobility" inheres adaptation.

A significant part for our pedagogical considerations is the study of V. Sydorenko (2010), who noted that "professional training of students of pedagogical universities promotes high professional teachers' competence" (V. Sydorenko, 2010). The scientist believes that fundamentalization is designed to provide professional mobility of modern expert that becomes increasingly important on labor market. "The principle of mobility provides the breadth of handicraft teachers' training, their readiness to rapid changes in the content of education, and the ability to quickly shift to teaching any new labor profile in high school" (V. Sydorenko [5, 25]).

Based on personal-oriented and competency approaches we consider professional mobility in the context of preparing future handicrafts teachers for innovative educational activities as their readiness and ability to work under fast dynamic (horizontal and vertical) changes of professional functions within the same professional activity and acquiring new professions (specializations or profiles) of technological education. The question of future handicraft teachers' readiness for innovative educational activity based on subjective activity, values, self-fulfillment, self-improvement and subjective experience is also very important.

The conducted structural analysis of the term "professional mobility of future handicrafts teachers" is based on the theoretical and methodological studies of several authors. Due to these analyses the following aspects of professional

mobility of future handicraft teachers in educational institutions were highlighted:

- 1) choice of specialization (initial mobility);
- 2) development of competencies that facilitate professional mobility (motivational value based (motivational, social, ideological), cognitive (technical, general, instrumental, technical and technological), gnostic (intellectual, forecasting, information and analytical), organizational, constructive (including professional) communicative, creative (research, creative, self education), reflective and predictive)
- 3) development of motivational sphere (assessment of satisfaction (dissatisfaction) choice of specialization), awareness of the need for professional mobility.

In the subjective aspect the mobility depends on such individual characteristics as the needs, interests, values, moral characters and other motivational factors. Obviously, in this case, there is a classic scheme determined by the following elements: needs – interests – motives. The directivity of the future handicraft teachers' occupational mobility takes an important role (career, social status, achievement of material well-being, etc.).

Our research confirmed that the development and implementation of the students' individual trajectory for innovational teaching activities is carried out during the whole period of study at the pedagogical university and goes through the several phases:

- **adaptation** for new educational environment of universities. It is determined by common goal – the training of the students for the innovational teaching activity and readiness for the occupational mobility;

- **training** includes the occupational establishment of the students that enables them to actively move according to student's individual trajectory to the occupational mobility; training of the students for innovational handicraft training usage is carried out. The conditions for the formation the students' readiness are formed. Knowledge is mastered, which concerns the innovational teaching activity; the formation of the competencies necessary for the future innovational teaching activity takes place;

- **estimative** – foresees active students' involvement in the occupational self-actualization and self-determination process; the independent usage of the innovative technologies and application of contextual-structural variants during the teaching practice.

Most researchers recognize the basic difficulty of the future teachers' occupational mobility forming in its multilevelness and therefore the knowledge should be formed simultaneously at four levels: methodological, theoretical, methodical and technological. The first two levels represent

theoretical readiness of the future teachers for innovational teaching activity; the others represent its practical readiness. Therefore, the implementation of the basic phases must be based on the integration of individual, modular, contextual and problematic education. The main organizational and methodical ways of the technology building are:

- creating the conditions for the maximal realization of each student's capabilities that is achieved by variation of training plans and programs and enables to create individual trajectory for forming their occupational mobility, based on their independent choice of the discipline selection;

- focusing on the basic knowledge and readiness formation necessary for innovative teaching activity (motivational, cognitive, technological and reflective) and their integration by means of interdisciplinary connection as a basis for mastering new activity field;

- formation of the technological education's integral figure and the future innovative teaching activity that will train the students for overcoming the psychological barriers that can occur during teaching new "Technology" field or career advancement;

- orientation on the occupational self-development and self-identity in the conditions of the rapidly changing technology market;

- development of the synergetic perception of the world, activation of the students' self-regulation that will facilitate the formation of making decisions' skills and acting in the unpredictable situations;

- implementation of the information and communication technologies, including the models of remote, smart and hybrid education systems;

- creating the conditions for students' creative expression during their training, occupational and educational activities through self-programming, self-realization (development, content and use of e-learning resources, electronic teaching methods, attracting the students to the independent educational activity with the web services tools, implementation of individual and group projects which based on the web-quests and blog-quests);

- facilitation the cognitive activity and the students' independence as the self-realization in the future innovational teaching activity through increased advisory and coordinating functions of teachers.

The above mentioned the organizational and methodological ways allow within compulsory disciplines to perform the purposeful work concerning the formation and development of the students' readiness to the occupational mobility. Within selective disciplines these ways are the basis of individual trajectory training building for the future innovative teaching activity and forming the occupational

mobility. The studying of the selective subjects allow taking into account subjective experiences, interests, inclinations, students' motives and increasing the motivation for the occupational self-realization in unstable labour market conditions.

In our view, it is also appropriate to develop and implement integrated courses aimed at deepening and expansion of interdisciplinary knowledge, the formation of interdisciplinary skills, the development of goal-setting, planning, forecasting, decision making. They organize and regulate further professional and educational work of the future handicrafts teachers based on the fusion and coordination of analytic processes, which is essential for a productive professional mobility. Integration can be achieved through a combination of different types, forms, methods, subjects of study. This allows you to achieve a higher level of compilation, deepening and expansion of subject material and methods of information processing. Experience of integrated courses teaching and analysis of university teachers experience allowed us to determine that the technical subjects in higher technical educational institutions are grouped based on their profile and in teacher training institutions they should be assembled in the form of integrated courses study like science of mechanics (theoretical mechanics, strength of materials, theory of mechanisms and machines, machine parts, electrical engineering, thermal engineering, hydraulics, vehicle); foundations of industrial production (construction materials theory, fundamentals of standardization and interchangeability, cutting, machinery and tools) and others.

In addition, it greatly enhances the educational process not only at the level of formation of preparedness for occupational mobility, but also at the level of entire system of future teachers training for innovative educational activities and requires:

- the creation of flexible learning programs and working plans that help to meet demands of the labor market and current trends of the educational field "Technology" reforming; transit to nonlinear, elective methods of educational process in higher education;

- the creation of conditions for the synthesis of individual educational plans in the area of interdisciplinary science that contributes to the synergistic approach in education, development of opportunities for mastering new not related to the chosen specialty courses (selected subjects should be unified as much as possible to enable the the largest number of students of related specialties to master them);

- the introduction of elective education modules for experimental and research activities on the basis of specialization and modernization of education and technology;

- targeted use of the regional component of educational content; interaction with regional education authorities, educational establishments of the city and region;

- increasing the level of participation and the role of students in planning their own path of education that promotes professional identity; encourages the creative work of students, intensifies research.

Implementation of these provisions allows (especially at the bachelor and master degree courses) to learn not only basic education program, but also to master educational programs of related professions or completely new ones, which is a prerequisite for successful training for occupational mobility.

**Conclusions.** Popular in today's world generic content of future handicrafts teachers training requires their ability to implement variable teaching activities, make innovative solutions, meet the rapidly changing conditions, upgrade their knowledge. This will allow future teachers to get used to innovative educational activities, solve vocational educational problems, flexible overcome difficulties in pedagogical situations so it will enable the teachers to be professionally mobile. This, in turn requires a fundamentally new view of the professional pedagogical training of future handicrafts teachers within higher education system.

Study of the formation of occupational mobility as a condition for training of future handicrafts teachers for innovative educational activities requires further definition and scientific substantiation, namely: organizational process (logistics of universities, the organization of the educational process, practices); semantic nature; special resources (teaching and learning materials); staffing; monitoring the quality of training.

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