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MICROQUALIFICATIONS AS A BASIS FOR PROFESSIONAL SELF-DEVELOPMENT OF MASTER'S STUDENTS

Abstract

This article examines the psychological role of microqualifications in shaping the professional self-development of master's students. Using self-determination theory and activity-based and student-centered approaches, it analyzes the psychological mechanisms by which microqualifications influence students' intrinsic motivation, professional self-efficacy, and professional identity. It describes the psychological structure of master's students' professional self-development, including value-based, cognitive, emotional-evaluative, and behavioral components. It also substantiates the pedagogical and psychological conditions for the effective use of microqualifications in master's education. Self-development is considered a very complex form of transformation of the inner world of a person. This means that a person knows himself, understands the essence of his being, identifies his personal and cognitive qualities and improves them during his life. Self-development is the impetus for professional self-development. After all, thanks to professional self-development, a person is formed who lives as a professionally qualified specialist, a creative person, an active

member of society, contributing to its cultural and historical development. Today, the issue of professional self-development has different levels in terms of content. The issue of professional self-development is deeply rooted; it occupies a special place in the history of human interaction. After all, professional self-development is a factor that characterizes the formation of a person as an individual, as a valued member of society, as an author, an active creator of his own life.

Keywords: microqualification, self-development, professional self-development, personality, self-knowledge, self-education, self-improvement.

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Микробіліктіліктер магистранттардың кәсіби өзін-өзі дамытуының негізі ретінде

Аңдатпа

Мақалада магистранттардың кәсіби өзін-өзі дамытуын қалыптастырудағы микробіліктіліктердің психологиялық рөлі қарастырылады. Өзін-өзі анықтау теориясы, іс-әрекеттік және магистрантқа бағытталған тәсілдер негізінде микробіліктіліктердің студенттердің ішкі уәждемесіне, кәсіби өзіндік тиімділігіне және кәсіби сәйкестілігіне әсер етуінің психологиялық механизмдері талданады. Магистранттардың кәсіби өзін-өзі дамытуының психологиялық құрылымы сипатталады, оған құндылық-мағыналық, когнитивтік, эмоционалдық-бағалау және мінез-құлықтық компоненттер кіреді. Магистратурада микробіліктіліктерді тиімді пайдаланудың психологиялық шарттары негізделеді. Өзін-өзі дамыту тұлғаның ішкі әлемін өзгертудің аса күрделі түрі ретінде қарастырылады. Бұл адамның өзін тануын, өз болмысының мәнін түсінуін, жеке және танымдық қасиеттерін айқындап, оларды өмір бойы жетілдіруін білдіреді. Өзін-өзі дамыту кәсіби өзін-өзі дамытудың қозғаушы күші болып табылады. Кәсіби өзін-өзі дамыту арқылы кәсіби білікті маман, шығармашыл тұлға, қоғамның белсенді мүшесі ретінде мәдени-тарихи дамуына үлес қосатын адам қалыптасады. Қазіргі таңда кәсіби өзін-өзі дамыту мәселесі мазмұны жағынан әртүрлі деңгейлерде қарастырылады. Бұл мәселе терең тарихи тамырға ие болып, адамның қоғаммен өзара әрекеттесу тарихында ерекше орын алады. Кәсіби өзін-өзі дамыту тұлғаның жеке адам, қоғамның құнды мүшесі, өз өмірінің авторы әрі белсенді жасаушысы ретінде қалыптасуын сипаттайтын фактор болып табылады.

Түйін сөздер: микробіліктілік, өзін-өзі дамыту, кәсіби өзін-өзі дамыту, тұлға, өзін-өзі тану, өзін-өзі тәрбиелеу, өзін-өзі жетілдіру.

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Микроквалификации как основа профессионального саморазвития магистрантов

Аннотация

В статье рассматривается психологическая роль микроквалификаций в формировании профессионального саморазвития магистрантов. На основе теории самоопределения, деятельностного и студентоцентрированного подходов анализируются психологические механизмы влияния микроквалификаций на внутреннюю мотивацию обучающихся, их профессиональную самооффективность и профессиональную идентичность. Описывается психологическая структура профессионального саморазвития магистрантов, включающая ценностно-смысловой, когнитивный, эмоционально-оценочный и поведенческий компоненты. Обосновываются психологические условия эффективного использования микроквалификаций в магистерском образовании. Саморазвитие рассматривается как весьма сложная форма трансформации внутреннего мира личности. Это означает, что человек

познаёт себя, осознаёт сущность своего бытия, выявляет свои личностные и познавательные качества и совершенствует их на протяжении всей жизни. Саморазвитие является импульсом профессионального саморазвития. Именно благодаря профессиональному саморазвитию формируется личность, которая живёт как профессионально квалифицированный специалист, творческая личность, активный член общества, вносящий вклад в его культурно-историческое развитие. В настоящее время проблема профессионального саморазвития имеет различные уровни содержания. Она является глубоко укоренённой и занимает особое место в истории взаимодействия человека с обществом. Профессиональное саморазвитие выступает фактором, характеризующим становление личности как индивида, как ценного члена общества, как автора и активного создателя собственной жизни.

Ключевые слова: микроквалификация, саморазвитие, профессиональное саморазвитие, личность, самопознание, самообразование, самосовершенствование.

Introduction. In the current context of innovative processes in the education system and the ever-changing demands of society, improving the professional adaptation and continuous development of teachers is becoming a key requirement. This very important issue is paid special attention to in the Address to the People of Kazakhstan by the Head of State K.K. Tokayev “Unity of the People and Systemic Reforms – a Solid Foundation for the Country’s Prosperity” [1].

The innovations taking place in the education system, such as the digitalization of education, inclusive education, project-based learning, and the use of artificial intelligence capabilities in the learning process, can be considered a manifestation of the implementation of the paradigm of innovation. In this regard, innovations such as the introduction of new programs in the content of advanced training for teachers and postgraduate students, the emergence of new specialties in the field of pedagogy are new directions arising from the modernization of this field. At the same time, the need for special training of teachers implementing any innovations in the field of education to be at the forefront of these changes increases.

This transformation in the industry has influenced the development and implementation of a new trend - short-term training programs (micro-skills) and systems called micro-degrees. The above trends are leading to new challenges for modern teachers. It is clear that traditional refresher courses, held every 3-5 years, are not keeping up with these changes. In this regard, we believe that micro-skills, which are the subject of our research, will allow us to quickly respond to changes in the current labor market and make the system of continuous education more dynamic.

Micro-skills - allow you to master a specific skill in a short time, at the right moment. Such courses can be devoted to various issues, such as: learning innovative technologies and methodologies, mastering new programs. The presence of relevant micro-skills courses makes a teacher a sought-after specialist, demonstrates his desire for self-development and readiness to master new roles. This option, which combines all levels and formats of the continuing education system, both formal and informal, is distinguished by the fact that it is possible to simultaneously use the potential of the educational triad. Therefore, micro-skills courses are relevant as an effective tool for the continuous, targeted and flexible professional development of teachers in the 21st century. In philosophical literature, three types of development are considered: progressive, regressive and development in one plane. Progressive development is a movement from simple to complex, from bottom to top, from outdated qualitative conditions to new ones, a process of renewal.

Development and self-development, professional self-development, being the source of each other, enrich each other. Professional self-development is the ability of a person to constantly acquire new knowledge in the process of living and working and use it creatively. It is influenced by external factors such as obtaining education and engaging in other cognitive activities. Through professional self-development, an individual realizes his abilities, improves his own mental qualities, as a result of which he contributes to the self-development of the community in which he lives, and also contributes to the cultural and historical development of society.

One of the major tasks facing pedagogical universities is the formation and constant improvement of the ability to study and work independently. The process of professional self-development of an individual is directly related to the processes of self-knowledge, self-education, self-improvement, self-understanding, self-regulation, self-assessment and management. A decisive step towards the active study and implementation of the ideas of professional self-development was made in the era of enlightenment, whose figures (K.A. Helvetsky, I.G. Herder, Zh.Zh. Rousseau) described it primarily as a manifestation of self-education and independent learning.

The main source of professional self-development of an individual is micro-skills. Micro-skills allow you to master a specific skill in a short time, at the right moment. Such courses can be devoted to various issues, such as: studying innovative technologies and methodologies, mastering new programs. The presence of relevant micro-skills courses makes a teacher a sought-after specialist, demonstrates his desire for self-development and readiness to master new roles. This option, which combines all levels and formats of the continuing education system, both formal and informal, is distinguished by the fact that the potential of the educational triad can be used simultaneously. Therefore, micro-skills courses are relevant as an effective tool for the continuous, targeted and flexible professional development of teachers of the 21st century.

Let us dwell on the psychological aspect of the professional self-development of an individual. In this case, it is worth considering the different views of domestic and foreign psychologists on the issue of professional self-development of an individual in terms of the peculiarities of their approach to the phenomenon under study.

The Psychological Essence of microqualifications. From a psychological perspective, microqualifications represent not only a form of educational organization but also a means of actualizing the student's subjective position. Their key characteristics—short-term, practical focus, and modularity—create conditions for experiencing success, increasing self-efficacy, and fostering a positive attitude toward professional development.

Mastering microqualifications allows students to: • recognize individual professional deficiencies; • independently design an educational trajectory; • correlate academic achievements with real-world professional tasks.

Psychological Mechanisms of the Influence of MicroQualifications on Self-Development Motivation. Theoretical analysis identified the following psychological mechanisms: 1. The experience of professional success, which promotes increased self-efficacy (A. Bandura); 2. Meaning-making, which ensures the connection between educational activities and professional goals; 3. Reducing academic anxiety through short-term and achievable goals; 4. Formation of professional identity through the accumulation of significant educational achievements; 5. Development of reflexivity as the basis for self-regulation of professional development.

The increasing importance and significance of the implementation of professional qualifications of teachers in accordance with modern requirements, obtaining additional specialties through micro-skills courses is a natural phenomenon. A review of the literature also confirms this. Below we will dwell on the results of some studies that reveal the essence of the issue.

Professor of Astana IT University Omirbayev S. M. considers micro-skills as a set of basic characteristics of short-term training. In his opinion, micro-skills are a form of training aimed at mastering specific professional skills, implemented in a limited time, structurally and content-oriented, including goals, expected results, volume of training material, organizational methods, implementation methods and assessment criteria [2]. Agreeing with this opinion, we conclude that this system is distinguished by its flexibility, goal-orientedness and adaptability to the current demands of the labor market. This is because through micro-skills, students can master a specific skill or competence and immediately apply it in professional activities.

According to Cai Y., Etkowitz H., currently, in connection with changes in the labor market, it is necessary to promote professional development and training of individuals, lifelong learning; increase the reliability of competencies acquired outside the framework of formal education and

training, and expand the scope of micro-skills provision [3]. We believe that this opinion corresponds to the current strategic direction of the field of advanced training of school teachers in our country.

Currently, research is being conducted in science to apply micro-skills in specific and professionally oriented areas. The authors of the work of interest to us, De Rosa, Bianco and Pallonetto, demonstrate the potential of using these programs in the training of specialists in the field of renewable energy for the organization of continuous professional training of specialists. They emphasize the importance of micro-skills as an element of sustainable professional development in dynamic sectors of the economy [4].

Researchers Tamoliune, Greenspon and Tereseviciene, conducting a systematic analysis of the potential of micro-competence for the development of key competencies in various professional fields, indicate the main trends and opportunities for adapting these programs to the needs of specific industries. The authors draw attention to the need to closely link micro-competences with the practical tasks of professional activity, which ensures their high demand among specialists [5]. Agreeing with the above comments, we consider our study as a domestic experience that is being added to this important issue. The theoretical foundations of micro-competence include several aspects. Let us dwell on the main ones. Micro-competence is based on a competency approach that focuses on specific skills and knowledge necessary to perform certain professional tasks. Because value is a system of orientations of a person, knowledge, skills that are directly necessary for productive work, ensuring optimal living in society, comfort of subjects of work and communication, as well as a means of comprehensive development of the individual. Scientist Sh.T. Taubayeva defines competence as a person's general ability and readiness for action, an integrated quality, based on the knowledge and experience acquired during the processes of learning and socialization [6]. The competency approach in the context of micro-competences that we are considering involves an emphasis on the development of specific, measurable skills necessary to perform specific tasks or roles in a rapidly changing labor market. Being small, specialized training modules, micro-competences fit very well into this paradigm, which allows for the rapid and targeted formation of the necessary competencies. This approach allows for the formation of educational programs that meet the requirements of the labor market.

Method and Materials. With the transformation of higher education and the transition to a lifelong learning model, microqualifications are becoming especially relevant as a flexible and practice-oriented tool for master's degree students' professional development. Microqualifications are short-term educational modules aimed at developing specific professional, digital, research, or cross-professional competencies in demand in the real-world professional environment. Unlike traditional educational programs, microqualifications are characterized by: modularity and flexibility of content; focus on practical outcomes; the ability to individualize the educational trajectory; rapid response to the needs of the labor market and the academic community.

For master's degree students, microqualifications are becoming more than just a form of supplementary training, but a mechanism for conscious professional development because: they promote the development of self-organization and self-management skills; they enhance motivation for professional growth; they develop a reflective attitude in future specialists;

Provide a link between academic training and professional practice. Thus, micro-qualifications act as a pedagogical tool for developing a culture of professional self-development, which is especially important at the master's level, which is focused on research and project work. The experiment aimed to assess the impact of micro-qualifications on the level of professional self-development of master's students in a university setting. Participants: Ninety-six master's students in the pedagogical and social sciences fields of study at one university participated in the experiment.

The participants were divided into two groups: Experimental Group (EG) — 48 master's students; Control Group (CG) — 48 master's students. The groups were comparable in age, field of study, and initial level of professional motivation. In the experimental group, microqualification modules were integrated into the educational process, implemented over the course of one semester

(16 weeks): Examples of microqualifications: Designing an Individual Professional Trajectory for Master's Students (2 ECTS); Academic Writing and Publication Skills (1 ECTS); Digital Tools for Professional and Scientific Self-Development (1 ECTS); Reflection and Self-Assessment of Professional Growth (1 ECTS). Each microqualification included:online and offline classes;practical assignments; individual mini-project;reflective report.The control group studied according to the traditional educational program without the inclusion of microqualifications.

Table 1. Distribution of Master's Students by Experimental Group

Group	Number of Participants	Fields of Study
Experimental Group (EG)	48	Pedagogy and psychology
Control Group (CG)	48	Pedagogy and psychology
Total	96	

Table 2. Criteria and Indicators of Master's Students' Professional Self-Development

Criteria	Key Indicators
Motivational and Value-Based:	Awareness of professional goals, desire for development, academic and professional motivation
Activity-Based:	Ability to plan an individual trajectory, independence, and active participation in the educational environment
Reflective:	Ability to self-assess, analyze one's own professional growth, and adjust goals

Table 3. Levels of Master's Students' Professional Self-Development (Ascertainment Stage, %)

Group	Low Level	Average Level	High Level
EG	34%	48%	18%
CG	36%	46%	18%

Note: No statistically significant differences were found between groups at baseline ($p > 0.05$).

Table 4- Dynamics of Professional Self-Development Levels in the Experimental Group (%)

Level	Ascertaining Stage	Control Stage	Change
Low	34%	10%	-24%
Average	28%	44%	-4%
High	18%	46%	+28%

Rating scale: from 1 to 5.

Table 5. Results of statistical testing of differences (Student's t-test)

Criteria	t	p
Motivational-value	2,41	< 0,05
Activity-based	2,27	< 0,05
Reflexive	2,58	< 0,05

The data presented in the tables demonstrate positive dynamics in the professional development indicators of master's students in the experimental group. The most significant changes were recorded for the reflective and motivational-value criteria, confirming the effectiveness of micro-qualifications as a tool for conscious professional growth. Statistical analysis of the results confirmed the significance of the differences identified ($p < 0.05$).

Study Results. Analysis of the experimental data showed that the inclusion of micro-qualifications in the master's degree curriculum has a significant impact on the level of professional development of master's degree students. During the ascertainment phase of the experiment, the distribution of professional development levels in the experimental and control groups was comparable. In both groups, the average level predominated (48% in the experimental group and 46% in the control group), while the proportion of master's degree students with a high level was only

18%. The obtained data indicate no statistically significant differences between the groups at the initial stage of the study ($p > 0.05$), confirming the validity of the subsequent experimental comparison. The results of the control phase revealed a significant positive trend in the experimental group. The proportion of master's degree students with a high level of professional development increased from 18% to 46%, while the number of students with a low level decreased from 34% to 10%. In the control group, the changes were moderate: an increase in the high level was only 4%, while a decrease in the low level was 8%, which cannot be considered a significant qualitative transformation.

The analysis of the mean values for the professional self-development criteria deserves special attention. In the experimental group, the highest scores were recorded for the reflective criterion (4.4 points), indicating the development of the master's degree students' ability to consciously analyze their own professional growth. The motivational-value and activity criteria also demonstrated steady growth (4.3 and 4.1 points, respectively), significantly exceeding similar scores in the control group. The results of statistical data processing using Student's t-test confirmed the significance of the differences identified between the experimental and control groups for all professional self-development criteria ($p < 0.05$).

Discussion. The results obtained confirm the assertion that microqualifications can be considered an effective pedagogical tool for fostering master's students' professional self-development. Unlike traditional forms of organizing the educational process, microqualifications create conditions for students to be proactive, facilitating the transition from externally imposed learning activities to conscious professional self-development. The significant increase in the reflective criterion is explained by the fact that the microqualification modules specifically included elements of self-assessment, professional planning, and reflective analysis. This is consistent with contemporary research emphasizing the key role of reflection in shaping master's students' professional identity and developing their readiness for lifelong learning.

The increase in the motivational-value criterion indicates that participation in microqualifications enhances master's students' intrinsic motivation for professional growth. Awareness of the practical significance of acquired competencies, as well as the opportunity to apply learning outcomes to real-world professional and research tasks, contribute to the development of a sustainable focus on self-development.

Positive changes in the activity-based criterion confirm that micro-qualifications contribute to the development of self-organization skills, individual educational trajectory planning, and independent decision-making. This is especially important for master's programs, which are aimed at training specialists capable of autonomous professional and research activities. The limited dynamics of indicators in the control group suggests that the traditional master's degree training model does not fully provide the conditions for developing a culture of professional self-development. In this context, micro-qualifications act as a pedagogical tool that compensates for this deficiency through flexibility, modularity, and a practical focus on learning. Overall, the study results confirm the feasibility of integrating micro-qualifications into master's degree programs as a foundation for fostering professional self-development and preparing future specialists for lifelong learning.

Conclusion. The theory and practice of the problem of professional self-development are based on the goals and requirements of the development of modern education in the Republic of Kazakhstan, the current socio-economic situation of our country and the direction it has taken towards the future. The theory and current practice of traditional education do not correspond to the requirements of our country's aspiration for civilization, but conflict with the needs of the student for self-realization, self-development, self-reflection, and professional career planning.

Based on the conducted research, the following recommendations can be made:

1. The structure and content of the set of professional qualities of future specialists will contribute to the systematic acquisition of theoretical knowledge by students in this area. They should

be included in the methodological programs of teacher training centers and schools of young scientists.

2. The problem of professional self-development should be effectively used in the information educational and research environment of higher education institutions.

3. Methodological guidelines on the issue of professional self-development should be taken as a basis for conducting thematic activities in the educational process of general education schools.

In conclusion, in order to become an intellectual nation, it is necessary to pay special attention to the scientific, professional, cultural information, knowledge and qualifications of the individual, psychological, moral characteristics and professional self-development in the social collective. Therefore, today one of the most important tasks of the higher education system is to create a "national intellectual core", to train internationally competitive specialists. Among the important qualities of a competitive specialist are creative thinking, the ability to apply the acquired knowledge, making new decisions, mastering technologies and innovations, and having sufficient potential for self-development. Improving these qualities requires, first, creating the prerequisites for attracting university graduates to innovative scientific, economic, social and cultural spheres, integrating students' academic and research work, coordinating the learning process with free time, and identifying students' creative talents. Professional self-development is one of the most important, complex and long-term urgent issues of our time.

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