

DEVELOPMENT OF STUDENTS' PROFESSIONAL THINKING SKILLS AS A FORM OF CONTINUING EDUCATION

В статье были рассмотрены актуальность, технологии, диагностика и необходимость непрерывного развития профессионального мышления студентов как залог успешности будущих специалистов. Дан анализ основным факторам, влияющим на развитие искомой компетенции, проанализированы основные особенности присутствующие студенческому возрасту, на основе этого разработаны рекомендации организации педагогического процесса. В статье также приводятся отрывки результатов эксперимента и заключения.

Ключевые слова: студенческий возраст, интеллект, мышление, профессиональное мышление, непрерывное образование, развитие, эксперимент.

The article reviewed the relevance, technology, diagnostics and the need for continuous professional development of students as a guarantee of success of future professionals. The analysis of the main factor influencing the development of competence, the main features of the student age, based on this development of the recommendations of the organization of the pedagogical process. The article also includes excerpts from the results of the experiment and conclusions.

Keywords: student age, intellect, thinking, professional thinking, uninterrupted education, development, experiment.

Today, our society needs specialists with higher education, who know their profession well, who are mobile, who can solve problems in a timely manner, who can save others from crisis situations with their own insight. The President of the Republic of Kazakhstan in his address to the nation “Critical public dialogue – the

basis of stability and prosperity of Kazakhstan” K. Tokayev rejects the mentality associated with raw materials and emphasizes the need to diversify the economy, that is, it is clearly stated that the future of our country is determined by the level of intellectual potential, high technology, science [1].

To do this, the education system in Kazakhstan must move to a special form of innovative development, where it is necessary to bring our education system in line with world norms and standards, which will allow us to preserve the best traditions of folk pedagogy and at the same time take into account trends in world education.

In the modern psychological and pedagogical space, it is assumed that the technological aspects of developing students' ability to think in situational situations will be taken into account. If we focus on the professional skills of each student and assess the possibility of their continuous development, in particular, if each individual is able to accurately diagnose the field of development of his own perceptual abilities, then the learning process and its development will be solved at its own level. It is taken into account that the technology of diagnostics depends not only on the individual thinking of students, but also on the instructions given by the teaching staff.

We realized that a number of factors affect the development of professional thinking skills of students: adaptation of students to the requirements of the university, personal and psychological characteristics of students (individual ability to learn), the presence of specially organized psychological and pedagogical activities, etc. In general, cognitive activity as an important factor in the development of students is determined by the need to expand the general field of thinking and increase the level of intelligence. We have seen in the analysis of research that their ability to think professionally is directly dependent on the situation.

We take into account the ability of students to think professionally, to go beyond the needs and the material studied, the need for self-development and self-education. Thus, we can effectively develop their cognitive activity, taking into account the age characteristics of students. The latter is one of the leading mechanisms to ensure a high level of independence and responsibility of students in the future.

Psychology and pedagogy play an important role in the development of students' professional thinking skills. According to the requirements of the algorithmic paradigm, the psychological basis is the driving force behind the dynamics of the growth of thinking. In this regard, many scientists on thinking and acting: Zh. Piaget, L.S. Vygotskie, A.H. Leontiev, N.A. Menchinskaya, T.T Tazhibayev and others. in his works.

The development of students' professional thinking in the broadest sense, the transition from academic to professional thinking, and in the narrow sense, the transformation of human thinking as a transformation of certain types and qualities, mastering other new combinations of professional thinking depending on the subject, tools, circumstances, results in the formation of species – psychological, technical, etc. see the application.

Thus, the content includes general education disciplines, basic disciplines, professional disciplines that form professional thinking; the qualitative component includes divergence, flexibility, uniqueness, novelty, independence; operational components – methods of mental activity, in particular, comparison, analysis, synthesis, abstraction, generalization, refinement and multiplicity. The essence of the concept of “teacher’s professional thinking” D.V.Vilkeev and this definition is valuable for us, in the future we will consider the author’s position as the basis of our work. Teacher’s professional thinking is a specific mental activity, in which the generalized representation and creative transformation of objective evidence of the pedagogical process, modeling of educational and upbringing processes due to the specifics of pedagogical phenomena, goals and objectives of teaching and education, as well as professional experience of the teacher [2].

S.I. Gilmanshina In her research, considers the method of formation of professional thinking of the future teacher as a system-building competence of the teacher [3]. It distinguishes its seven main functions: explanatory, diagnostic, predictive, projection, reflexive, management of the pedagogical process and communicative (the first five can be attributed to the forms and methods of scientific thinking).

Based on the structure we identified and its components, as well as the identified criteria and indicators for the development of professional thinking skills of students, we created a diagnostic map to determine the level of development of professional thinking.

Diagnostic results are easily processed and give an objective description of the development of students’ professional thinking skills (Table).

The results of the assessment of the initial level of professional thinking of students

Research components	Level	EG experimental group		CG control group	
		саны	%	саны	%
1	2	3	4	5	6
1 Motivational framework of development	low	14	25,4	16	28
	average	36	65,4	35	61,4
	high	5	9	6	10,5
2 Analytical and reflexive skills	low	14	25,4	12	21
	average	29	52,7	29	50,8
	high	12	21,8	16	28

Окончание таблицы

Research components	Level	EG experimental group		CG control group	
		саны	%	саны	%
3 Independence of thinking	low	21	38,1	20	35
	average	23	41,8	28	49,1
	high	11	20	9	15,7
4 Critical thinking	low	55	100	57	100
	average	-	-	-	-
	high	-	-	-	-
5 Professional and value orientations	low	55	100	57	100
	average	-	-	-	-
	high	-	-	-	-
6 Special professional thinking	low	55	100	57	100
	average	-	-	-	-
	high	-	-	-	-
7 Logical and creative thinking	low	29	52,7	32	56,1
	average	19	34,5	21	36,8
	high	7	12,7	4	7
8 Human-spiritual and cultural orientations	low	31	56,3	36	63,1
	average	16	29	21	36,8
	high	-	-	-	-
9 Semantic completeness of the word	low	16	29	15	26,3
	average	30	54,5	35	61,4
	high	9	16,3	7	12,2
10 Ability to properly organize the professional environment	low	47	85,4	50	87,7
	average	8	14,5	7	12,2
	high	-	-	-	-
11 Ability to apply professional knowledge and understanding at a professional level	low	55	100	57	100
	average	-	-	-	-
	high	-	-	-	-
12 Leadership	low	34	61,8	30	52,6
	average	13	23,6	17	29,8
	high	8	14,5	10	17,5

Based on the analysis of the results obtained during the detection experiment, we obtained the data shown in Figures 3 and 4.

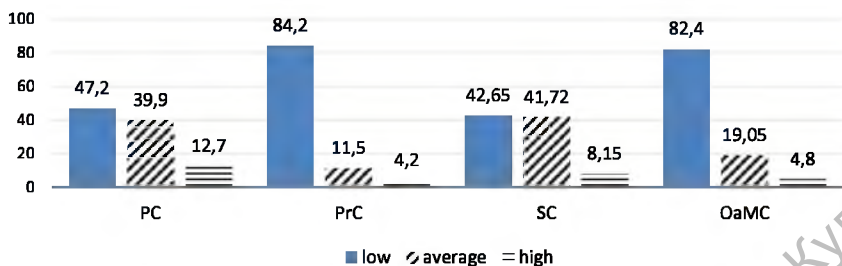


Figure 3 – The initial level of development of students' professional thinking skills
Note – Experimental group

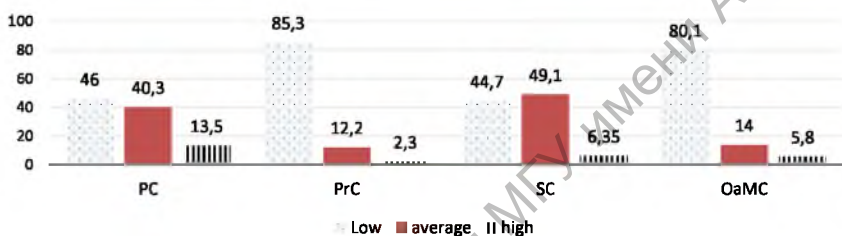


Figure 4 – The initial level of development of students' professional thinking skills
Note – Control group

Thus, the findings of the experimental experiment showed that students' ability to think professionally does not develop spontaneously. The need for targeted development of professional thinking skills of students and the lack of an appropriate system in the university necessitated the introduction of the model of professional thinking development of students that we have developed. The model of developing students' professional thinking aims to increase students' enthusiasm for lifelong learning.

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