

# Preparing Future Physical Education Teachers for Solving Typical Professional Tasks

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**Abstract:** The article deals with the process of preparing a competent physical education teacher, who is competitive in the labour market, can easily navigate in related fields of work and is ready for the continuing professional development and social and professional mobility. The research aims to theoretically justify and experimentally verify the effectiveness of implementing the designed model of stage-by-stage preparation of future physical education teachers to solve typical professional tasks. It is planned to use the integrated and interdisciplinary tasks to prepare future teachers to perform basic functions during pedagogy classes, as well as certain methods of physical education and teaching practice, to introduce an integrated specialized course, titled “Technologies for Solving Typical Professional Tasks of Future Physical Education Teachers” to develop skills for solving stereotypical, diagnostic and heuristic professional tasks in interactive types of professional activity. The control and experimental groups (150 respondents each) were formed based on the survey of teacher students regarding their intentions and desire to participate in the experiment. The effectiveness is proved by the significant qualitative difference between the results of both EG and CG: the percentage of the EG students with a high level of readiness to solve typical professional tasks has increased by 33.7% compared to the CG. Both quantitative and qualitative interpretation of the obtained results proves the effectiveness of implementing the experimentally justified content of professional activity in professional training of future physical education teachers in higher education institutions in Ukraine.

**Keywords:** *pedagogical conditions; educational courses; competency; technologies; model; stage-by-stage preparation.*

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## Introduction

A competency-based approach to the preparation of future physical education teachers determines the shift of emphasis from acquiring knowledge, skills and abilities approved by state standards to developing the ability to act practically, make decisions, apply effective pedagogical technologies in professional situations and defend an active life position in all spheres of public life, as well as the striving for continuing education and reflection. Accordingly, the criterion for determining the quality of professional training is teacher competency, which most clearly reflects the full range of state requirements for specialists in the 21st century. In the structure of the curriculum, typical professional tasks are generic modules for checking the level of graduates' readiness to perform professional functions.

The ascertaining experiment shows that future physical education teachers are mostly at an average level of readiness to solve typical professional tasks: 12.1% of respondents are at a high level, 43.5% – at an average level, 38.1% – at a sufficient level, 6.3% – at a low level. The results of the ascertaining experiment prove the existence of the content and procedural gaps in the content of professional training of future physical education teachers, which determines the organization of special work to develop their readiness for solving typical professional tasks.

Such scholars as Aleksyuk (1998), Bida (2003), Bondar (2015), Nychkalo (2000), Lynenko (1995) and Ziaziun (2001) studied different aspects of future physical education teachers' readiness to solve typical professional tasks. The issues of developing different skills in physical education teachers were analyzed by Kokhanko (2007), Lozenko (2005), Voskresenska et al. (1996). Also Sheremet et al. (2019), Khoruzha (2004), Martynenko (2009), Matvienko (2010), Melnyk et al. (2019) searched for the ways to improve the level of their professional training at the stage of university study. Gerasymova et al. (2019), Husak (1999), Ihnatenko (2001), Komar (2011), Pometun & Pyrozhenko (2004), Byvalkevych (2020), Sebalo (2020), Koziuk (2020) justified the organization of the educational process in professional training of future teachers by traditional and innovative technologies.

Scientific analysis of pedagogical research in the field of professional training shows that the problem of preparing future physical education teachers for professional activities remains incompletely studied. Indeed, it is

necessary to clarify the content, structure and process of developing readiness for solving typical professional tasks.

### **Materials & methods**

**The preliminary stage** was aimed at revealing the ideas about rational ways of solving typical professional tasks and introducing students to the theory and practice of the teaching profession (“Didactic”, the propaedeutic practice “School Day”). The knowledge about general didactic foundations of learning in school was emphasized due to the use of analytical and synthetic operations, which made it possible to develop local general didactic skills (recognition, differentiation, singling out, grouping). The knowledge about thematic practical and intellectual and symbolic practical and intellectual types of skills and levels of their transposition into independent professional activities preceded the integration of knowledge from individual methodical courses and the development of local skills. Due to didactic (a systemic course), future teachers were taught to perform different types of pedagogical tasks and solve situations of professional content. To this end, they worked in expert groups and used interactive cooperative learning technologies (“Discussing problems together”, “Microphone”, “Incomplete solution”, “Brainstorming”, “Teaching to learn”, “Scroll-saw”, “The case method”, “Decision Tree”). The gradual development of algorithms for solving didactic tasks created the conditions for expressing cognitive and activity-based and reflexive components of students’ readiness to solve problems, including observing teachers at work in the framework of the teaching placement “School Day”. A series of textbooks have been compiled and implemented in the educational process. They are “Tests on Pedagogy”; “Didactic and Methodological Support for Organizing and Implementing Propaedeutical Practice of Future Physical Education Teachers”, “Workbook on Didactic”, which discloses the mechanisms for detailing the development of local professional skills.

**The basic stage** of the model was reinforced with the content of methodological courses. Accordingly, the professional skills of didactic and methodical and educational functions of teachers were developed. The permanent progress of developing students’ readiness for solving typical tasks was ensured by the introduction of a system of multidisciplinary tasks, stimulating its cognitive and activity components.

**The integration stage** was aimed at classifying and introducing different groups of students’ skills for them to acquire the so-called “complex professional skills”. They are based on a sophisticated algorithm,

incorporating decision-making procedures along with the use of vast arrays of operational and previously acquired information. This was facilitated by the content characteristics of certain courses (Organization and Management in Education (School Management), Specialized Courses and Seminars, Pedagogical Technologies in School), as well as various types of teaching placement. The introduction of the author's integrated specialized course, titled "Technologies for Solving Typical Professional Tasks of Future Physical education teachers" has led to a review of the general principles of certain methods of education, as well as a generalization and systematization of students' knowledge and skills to understand and use the acquired knowledge while performing complex tasks. At this stage, it was essential to ensure a fruitful interaction in the system "teacher – future specialist – teacher's professional activities", thus providing maximum opportunities for revealing the level of students' readiness in this aspect. Pedagogical conditions (creating an interactive environment for educational and professional activities of students; promoting students' values-based approach to mastering the future profession; creating the situations of "immersing students in professional activity") have ensured the successful implementation of the designed model within the framework of the complex approach used in teaching professional subjects (interactive training sessions, workshops, individual consultations) to develop this kind of readiness.

This research divides pedagogical conditions into groups: the conditions for developing the readiness of future physical education teachers to solve typical professional tasks; the conditions ensuring the successful implementation of the designed model and its functioning.

First, it is relevant to consider **pedagogical conditions** for *developing the readiness* of future physical education teachers to solve typical professional tasks. They include those pedagogical conditions that are deliberately created in the educational process of universities, namely making the educational process profession-oriented; modelling typical pedagogical situations in the educational process; gradually developing the readiness of future physical education teachers to solve typical professional tasks following professional functions.

*Making the educational process profession-oriented.* The basis of university training is educational and professional activities, which are aimed at acquiring scientific knowledge in the form of theoretical concepts and the ability to apply them while solving professional tasks. The main difference between educational and professional activities lies in its professional orientation, the necessity to know the ways how to solve professional practical problems and develop professional thinking and creativity.

Professional training of future physical education teachers is a system of organizational and pedagogical activities which promote professional orientation of knowledge, skills and readiness for professional activity implemented in the framework of the training.

*Modelling typical pedagogical situations in the educational process.* The value of modelling in the educational process lies in the fact that pedagogical situations used in teacher training act as an intermediate link between pedagogical theory and, basically, work at school. It is important to take into account the following aspects so that students can learn how to solve pedagogical situations: first, future teachers should anticipate the emergence of difficult situations in teaching, understand the real causes of such situations, be ready to solve them and know how to prevent them. Secondly, a pedagogical situation is an effective means of activating students' cognitive activity, improving their thinking activities, such as synthesis, analysis, generalization, argumentation, transfer of knowledge to new conditions, etc.

*Gradually developing the readiness of future physical education teachers to solve typical professional tasks following professional functions.* The first stage involves developing creative focus and openness to the new, promoting students' need for search activity, improving their ability to identify, formulate, analyze and solve creative pedagogical tasks. At the second stage, students acquire the basics of research methodology, pedagogical research and methods of pedagogical research, the main concepts of innovative pedagogy, various types of innovative educational institutions and alternative generally pedagogical teaching technologies. At the third stage, they familiarize themselves with innovative technologies. Thus, future teachers participate in the development of the author's programme (collective and individual), learn to analyze and predict the development of innovation, as well as the difficulties in its implementation. The fourth stage covers practical work on the experimental site, application of innovations, correction, tracking of the results of experimental work, self-evaluation of professional activities.

The analysis of the syllabus makes it possible to identify four groups of courses (concerning the years of study) that influence the development of future physical education teachers' readiness to solve typical professional tasks. Their content is analyzed on the example of solving some typical professional task, namely realizing the main functions of learning: educational, developmental, cognitive, motivational and facilitating ones. During the implementation of the model for step-by-step preparation of future physical education teachers to solve typical professional tasks, such **courses** as "Introduction to the Profession", "Didactic", as well as the thepropaedeutic practice "School day" have been modified during the

implementation of the model for step-by-step preparation of future physical education teachers to solve typical professional tasks.

The first year of study covers "*Introduction to the Profession*" (**1st semester, 1 credit**). The main educational goals of the course are related to developing students' orientations, familiarizing them with the peculiarities of the profession. The course aims to encourage students towards professional development, which can be realized if they understand the features of the future profession and self-organization of pedagogical activity. The course objectives are the following: to form a general understanding of the structure, content, basic forms, methods, means of teaching, the nature and specifics of future professional activities; to familiarize students with the peculiarities of teaching in a pedagogical university and adaptation to the educational process; to explain the importance of self-education and self-study in shaping the future teacher's personality. The content of local skills in solving typical professional tasks implies mastering the functions of pedagogical activity and pedagogical skills of the teacher.

This course also covers the generalized approaches to mastering the profession, which encouraged future physical education teachers to reproduce the results of educational activities over four years. The motivation and values of readiness were evaluated based on the materials of not only this course but also other courses (social sciences, humanities, general principles of pedagogy and psychology). The cognition, activity and reflection were used to identify the attitude of future teachers to the profession, clarify their ability to conduct educational activities and evaluate their results (summarized data are presented as findings of the ascertaining stage of the experiment).

The next course is *General Fundamentals of Pedagogy*. It aims to develop a sustainable interest in future professional and pedagogical activities, and, as a result, a high level of intrinsic motivation towards mastering pedagogical theory, professional abilities and skills; to familiarize students with concepts and categories and theoretical and methodological foundations of pedagogy. The course objectives are the following: to facilitate the development of positive motivation towards professional and pedagogical activities; to develop students' knowledge about pedagogical activity, its structure and functions; to develop knowledge about the system of professional qualities and pedagogical skills of physical education teachers; to familiarize students with the requirements to the personality of the teacher; to promote students' awareness of their personal and professional activities; to develop knowledge about the education system, features of its organization, principles of functioning; to develop professional competency in the field of physical

education; to develop knowledge about the subject and objectives of pedagogy and its methodology; to develop systemic understanding of the goals and objectives of modern education; to promote students' awareness and understanding about the role of education, development and formation of the child's personality during schooling; to facilitate general and professional self-development, to promote the development of students' individual strategies for professional development during their university study. Such components as productivity, activity, communication and their functions in the formation of personality form the content of local skills in solving typical professional tasks to implement the basic functions of learning.

The course "*General Developmental and Educational Psychology*" (**2nd semester, 6 credits**) aims to expand and deepen the students' knowledge about the childhood, mental development of the child at the stage of its formation and development in view of important psychological new formations, sensitive periods, leading activities and maturation of the nervous system by the methods of their study at different life stages. The course objectives are as follows: students master the basic concepts of the course, such as mental development, age crisis, leading activities, new formations, education, learning, communication, psychological diagnostics. Local skills include learner autonomy.

In the second year of study, students learn "Didactic" (**3rd semester, 4 credits**). The course aims to prepare future physical education teachers to design the educational process. The course objectives are the following: to teach students to do course scheduling of physical education, to form a system of knowledge and ability to plan and analyze a lesson as a system; to teach to realize the basic functions of teaching and learning: educational, developmental, cognitive, motivational and facilitating ones; to teach students to use different types and technologies of teaching and learning; to facilitate the development of experience in ensuring internal and interdisciplinary links in the educational process in school. The organization of learning activities in the lesson forms the content of local skills in solving typical professional tasks to implement the basic functions of learning.

*The propaedeutic practice "School Day"* (**3rd and 4th semesters, 7 credits**) aims to form students' conscious and creative attitude towards teaching, a sense of civic and professional duty, psychological readiness for pedagogical activities, to generalize and systematize the knowledge about psychology, didactic, theory of education, school hygiene, partial methods, to ensure the connection between theoretical knowledge about psychology, pedagogy and individual methods and the real pedagogical process and the

possibility of applying them in practice; to increase cognitive activity of students and their interest in educational activities; to develop students' initiative and creative potential; to develop students' skills of psychological and pedagogical observation and analysis of the educational process; to motivate future teachers towards creative professional activities and professional progress. Such components as a familiarization with school life and classroom life, educational work, study of the classroom teachers' experience and system of work, preparation for conducting some types of extracurricular activities, psychological and pedagogical study of pupils, as well as of the leading teaching experience and the system of educational work form the content of local skills in solving typical professional tasks to implement the basic functions of learning.

Students acquire specialized professional and functional skills in the process of mastering the methods of physical education (**4th and 5th semesters, 4 credits**). The aim of the course "*Man and the World*" is to prepare future physical education teachers to teach *Environmental Studies*, which implements the content of the educational field "Man and the World". The content of local skills is the following: types of lessons appropriate for use in the educational process to implement the content of educational branches approved by the State standard of physical education and related programmes; the peculiarities of building the lesson content depending on its type and structure; modelling the lesson as a whole system; self-evaluation of the lesson content, as well as the methods of its conduct as a component of its reflection. The components of local skills are as follows: to choose the type of lesson that will fully realize the content and objectives of the course; the ability to plan a lesson and build its content; the ability to prepare a part of the lesson, as well as its self-analysis and mutual analysis.

The course "*Organization and Management in Education (School Management)*" (**5th semester, 1 credit**) aims to develop students' professional knowledge about scientific principles of school management, organization of methodical work, intraclass management and monitoring, generalization and implementation of advanced pedagogical experience in practice. The course objectives are the following: to develop professional competency in physical education; to use competencies to develop professionally significant qualities; to identify professional skills and creative pedagogical capabilities; to develop students' research skills in organizing and managing school; to prepare future teachers to solve non-standard pedagogical situations in school management; to promote comprehensive and professional self-development, as well as the development of individual strategies for professional development during a university study. Such components as



advanced pedagogical experience, innovative pedagogical activities and implementation of pedagogical achievements in school practice form the content of local skills in solving typical professional tasks to implement the basic functions of learning.

*Teaching placement* aims to form students' ability to observe the educational process and analyze it, prepare and conduct lessons and educational activities. Its objectives are the following: to deepen and consolidate theoretical knowledge about the methods for teaching basic subjects in school; to teach students to observe and analyze the educational process at school, taking into account the age and individual characteristics of pupils; to teach students to plan the educational process, prepare and model various lessons; to prepare students for different types of lessons using effective teaching methods and techniques; to develop future teachers' control and evaluation skills; to develop their ability to analyze and self-analyze lessons; to develop their interest in the teaching profession and advanced pedagogical technologies; to develop their ability to conduct research. It also develops students' ability to rationally select a variety of effective methods and techniques for working with pupils, to evaluate lessons and any educational events and analyze them, to develop moral character in pupils, to rationally select the content and methods for an effective organization of different forms of extracurricular activities.

**Pedagogical conditions for implementing the model** for developing future physical education teachers' readiness to solve typical professional tasks include creating an interactive environment for educational and professional activities of students, promoting students' values-based approach to mastering the future profession, creating the situations of "immersing students in professional activity".

*Creating an interactive environment for educational and professional activities of students.* The evolving situation can create an environment where participants with certain value orientations have situational relationships. The environment "... will become more sustainable if one takes into account the uniqueness of the individual, the right to freedom of choice, the responsibility of each participant for a particular situation. Therefore, the teacher should be the "conductor" of this new educational environment" (Kukushkin, 2006). It is well known that one should take into account the influence of environmental factors when preparing students for future professional activities. On the one hand, it gives an opportunity to better understand the student's personality and, on the other hand, to create conditions for his/her creative development and, finally, to provide him/her with quality training as a future specialist. When it comes to educational

institutions, the educational environment means a specially organized space of learning for an individual or a group (Pryakhin, 2000). This definition justifies the need to create an interactive environment to implement the model for developing the readiness of future physical education teachers to solve typical professional tasks.

*Promoting students' values-based approach to mastering the future profession.* The values of university study promote the continuing professional development of the teacher, who can solve typical professional tasks. For this purpose, higher education needs to do the following: to teach students self-regulation and develop their knowledge about the modern historical and cultural heritage; to involve them in national and cultural traditions and universal values of the world culture; to form their motivation and appreciation of the holistic educational process; to stimulate their need for the continuing professional self-development and self-study (Shemynoh, 2005).

*Creating the situations of "immersing students in professional activity".* Within the competency-based approach, "the immersion situations" should be constructed and predefined (Elkonin, 2002). The term "immersion" implies evaluating the situation, predicting actions and relationships that require some decisions. The specifics of the competency-based approach lies in the fact that "the origin of knowledge is traced" rather than "ready knowledge" is acquired (Gromyko, 2000). In this approach, educational activity, which periodically acquires research or practical-transformative character, becomes itself the item of acquisition.

It is advisable to use the situational method to "immerse in the profession". This method is based on introducing students to some difficult situations. They need to understand this situation and make the right decision, anticipating the consequences of that decision and finding other solutions. The method of analyzing a specific learning situation is rather effective. It involves discussing and analyzing specific situations from students' own experiences. Practical examples are of interest to others, which makes it possible to consider a wide range of specific situations in a short time. This method helps to address various problems arising from the situational description. At present, the description of the situation should not be accompanied by the teacher's comments but should cover only the information that is needed to make a decision (Yagupov, 2002).

Experimental work was conducted at M. P. Drahomanov National Pedagogical University (Kyiv); Donbas State Pedagogical University (Sloviansk); Khmelnytskyi Academy of Humanities and Pedagogy (Khmelnytskyi); Mykhailo Kotsiubynskyi Vinnytsia State Pedagogical

University (Vinnytsia); Transcarpathian Institute for Postgraduate Teacher Education (Uzhgorod). The control and experimental groups (150 respondents each) were formed based on the survey of teacher students regarding their intentions and desire to participate in the experiment.

To solve these problems, relevant research methods were used. They include the following: theoretical methods – analysis of scientific sources on the problem of under study to determine research aim, object and subject, formulate research objectives, clarify the concept of “future physical education teachers’ readiness to solve typical professional problems”; modelling – to design a model for developing future physical education teachers’ readiness to solve typical professional tasks; empirical methods – to collect information (questionnaires, tests, talks, pedagogical observation, analysis of students’ activities) and, therefore, specify the problem under study, pedagogical experiment (ascertaining, formative and controlling stages) to determine the effectiveness of experimental work; statistical methods – methods of mathematical statistics for quantitative and qualitative analysis, processing and systematization of experimental data.

To identify the levels of future teachers’ readiness to solve typical professional tasks, the following techniques were used: the methodology for studying professional and pedagogical orientations of the personality by N. Kuzmina (1970) (E. Nikireev’s modification (1983)); the study of value orientations (Piekhota, 2005); the identification of reflexivity development level (Karpov, 2005); the author’s questionnaire to determine the effectiveness of solving local, specialized professional, functional and typical tasks in professional activities; the methods of observation and peer review of teachers’ interviews. The expert evaluation was used to determine motivation, values, cognition, activity and reflection of a particular type of readiness based on the developed criteria and their indicators.

## Results

The process of forming motivation, values, cognition, activity and reflection of such readiness was studied during the formative experiment, namely while performing relevant tasks to determine the level of future physical education teachers’ readiness to solve typical professional tasks. The summary results of the formative experiment are presented in Table 1.

Table 1 shows that active factors have a positive effect on the level of future physical education teachers’ readiness to solve typical professional tasks by all components. At the beginning of the experiment, there were no sharp differences in the indicators in the CG and the EG. Upon completion

of the experiment, positive changes in motivation and values occurred at all levels in the EG. The number of students who were at a sufficient level of readiness significantly decreased (36.7% – before the experiment and 12.0% – after the experiment). The number of students with a high level increased (11.3% – before the experiment and 50.0% –after the experiment). Some positive dynamics of motivation and values is explained by the attitude of future physical education teachers towards professional activities (needs, interests, motives, a conscious professional choice the EG).

**Table 1.** *Studying the component structure of future physical education teachers' readiness to solve typical professional tasks, %*

<b>Motivation and Values</b>						
<b>Levels</b>	<b>EG</b>		<b>Dynamics</b>	<b>CG</b>		<b>Dynamics</b>
	<b>Stages</b>			<b>Stages</b>		
	<i>Ascertaining</i>	<i>Formative</i>		<i>Ascertaining</i>	<i>Formative</i>	
High	11.3	50.0	38.7	10.7	30.0	19.3
Average	43.3	34.7	-8.7	44.0	38.0	-6.0
Sufficient	36.7	12.0	-24.7	37.3	27.3	-10.0
Low	8.7	3.3	-5.3	8.0	4.7	-3.3

<b>Cognition</b>						
<b>Levels</b>	<b>EG</b>		<b>Dynamics</b>	<b>CG</b>		<b>Dynamics</b>
	<b>Stages</b>			<b>Stages</b>		
	<i>Ascertaining</i>	<i>Formative</i>		<i>Ascertaining</i>	<i>Formative</i>	
High	10.7	46.0	35.3	11.3	32.7	21.3
Average	40.0	41.3	1.3	38.7	41.3	2.7
Sufficient	43.3	9.3	-34.0	44.0	22.0	-22.0
Low	6.0	3.3	-2.7	6.0	4.0	-2.0

<b>Activity and Reflection</b>						
<b>Levels</b>	<b>EG</b>		<b>Dynamics</b>	<b>CG</b>		<b>Dynamics</b>
	<b>Stages</b>			<b>Stages</b>		
	<i>Ascertaining</i>	<i>Formative</i>		<i>Ascertaining</i>	<i>Formative</i>	
High	14.0	42.0	28.0	14.0	35.3	21.3
Average	46.7	38.0	-8.7	47.3	34.7	-12.7
Sufficient	34.0	14.7	-19.3	34.0	24.7	-9.3
Low	5.3	5.3	0.0	4.7	5.3	0.7

In the CG, the dynamics at a high level is lower than that in the EG. There is almost no dynamics at average, sufficient and low levels of students' readiness, which is explained by the lack of desire to improve their

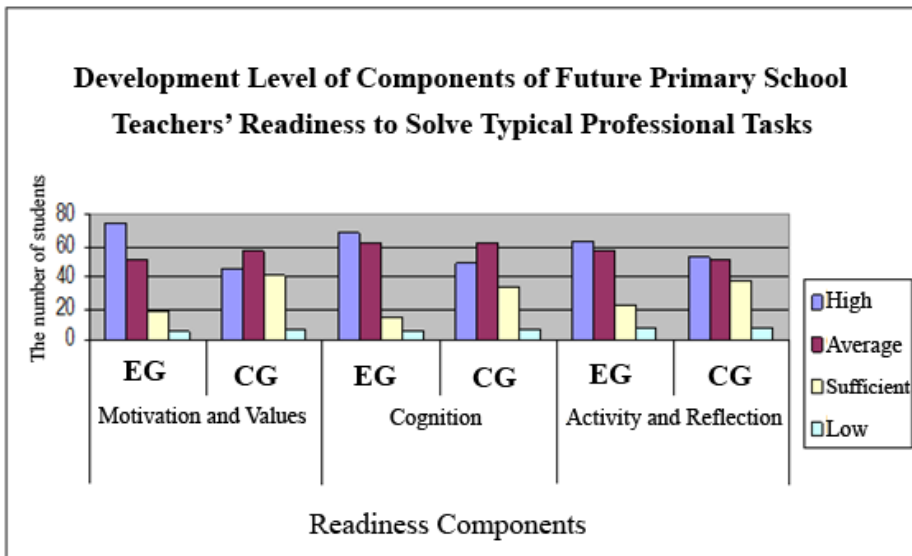
knowledge and skills during their university study, as well as to strive for self-development.

Table 1 also proves that active factors had a positive effect on the readiness of future physical education teachers to solve typical cognitive tasks. After the end of the experiment, some positive changes occurred in the EG. Indeed, the number of students with a high level (10.7% – before the experiment and 46.0% – after the experiment) increased, whereas the number of students with a sufficient level of professional readiness decreased (43.3% – before the experiment and 9.3% – after the experiment).

In the CG, one can also observe some similar trends (the reason being the increase in the overall level of development of professional ideas and professional qualities of future graduates), although the indicators are slightly worse (11.3% – before the experiment and 32.7% – after its completion). The reason lies in the absence of an active influence factor.

The obtained results show a significant increase in the number of students with a high level of readiness by such components as activity and reflection (14.0% – before the experiment and 42.0% – after the experiment). Students prove that they can solve typical professional tasks, evaluate and deal with professional situations. In the EG, the number of students with to a sufficient level decreased significantly (34.0% – before the experiment and 14.7% – after the experiment). The positive influence of active factors on future physical education teachers' readiness to solve typical professional tasks by such components as activity and reflection is visible when comparing the dynamics of results in the EG and the CG (see Figure 1). In the CG, the absence of positive changes is explained by the inability to acquire integrated professional knowledge to solve typical professional tasks.

Thus, one can see that significant differences in the EG and the CG are related to high and sufficient levels. In the EG, there are more students with a high level of readiness to solve typical professional tasks by all the components than in the CG. However, there are more students with a sufficient level in the CG.



**Fig. 1.** The readiness of future physical education teachers to solve typical professional tasks based on the results obtained from the formative experiment

The methods of mathematical statistics show some positive dynamics of the development levels for such readiness, which proves the effectiveness of the proposed methodology. The dynamics of the development levels of future physical education teachers' readiness to solve typical professional tasks is shown in Table 2.

**Table 2.** The readiness of future physical education teachers to solve typical professional tasks, %

Levels	EG		Dynamics	CG		Dynamics
	Stages			Stages		
	Ascertaining	Formative		Ascertaining	Formative	
High	12.0	45.7	+33.7	12.3	33.1	+20.8
Average	43.4	37.8	-5.6	43.7	38.0	-5.7
Sufficient	38.5	12.1	-26.4	37.6	24.4	-13.2
Low	6.1	4.4	-1.7	6.4	4.5	-1.9

Table 2 proves that the EG students show higher indicators in the levels of such readiness (compared to the CG). Indeed, the number of students with a high level increased by 33.7% compared to the ascertaining stage, whereas average indicators decreased by 5.6%, sufficient indicators – by 26.4% and low indicators – by 1.7%.

The validity of the experimental data was confirmed by the methods of mathematical statistics, namely Wilcoxon Signed Rank Test, which shows that certain “typical” shifts in intensity significantly dominate in the EG ( $5 \leq 8$ ). The qualitative analysis of the obtained data shows that the EG students have quickly adapted to the stage of professional education and successfully overcome the crisis of adaptation, testing and professional readiness. Their acquaintance and gradual “immersion” in the profession occurred simultaneously with the development of components of their readiness to solve typical professional tasks, which made it possible to adequately evaluate the individual characteristics of personal and professional development.

## **Discussion**

It is found that the implementation of Ukrainian and foreign experience of personality-oriented (Ziaziun, 2001; Melnyk et al., 2019) and competency-based (Horuzha, 2004; Elkonin, 2002) approaches in the educational process of higher education institutions encourages modern psychologists and educators to recognize the need to correlate the competencies acquired during a university study and the ability to solve professional tasks under real pedagogical conditions.

It is proved that it is essential to deliberately influence the development of future teachers’ readiness to solve typical professional tasks of professional activity, as well as the interpretation of readiness as a process and as a result of some activity. Given the cohesiveness, integrity, dynamism and multi-components of this phenomenon (Sadova, 2010), it functions as a regulator of successful professional activities (Havrysh, 2006). Based on the results obtained from the analysis of certain scientific views, such multifaceted interpretations of the defined concept as stable personal qualities (Vuzhyna, 2008; Trotsko, 2002), integrative personality qualities (Havrysh, 2006), both results and quality of the training (Otych, 1997) are taken as the basis for defining the concept of “developing the readiness of future teachers to solve typical professional tasks”. This research interprets the concept as a complex structure, consisting of positive attitudes, motives of activity, terminal and instrumental values, professional and pedagogical and methodical knowledge, skills and experience, their application, as well as a system of evaluation and self-evaluation of results and products of activity.

Considerable attention has been paid to the need to teach students to choose relevant ways for solving different tasks to ensure an effective interaction between the participants in the educational process, transform

personal local competences acquired during the training into more complex multifunctional competencies, that is, the ability to solve professional tasks that are typical for certain professional situations (stereotypical, diagnostic and heuristic ones). The supersituative analysis of an educational environment in school and the teacher's ability to quickly analyze typical professional situations have made it possible to classify and group the functional tasks of professional activities into the system of integrated and interdisciplinary tasks for future physical education teachers. The basic functions of professional activities, which are aimed at fulfilling professional tasks, have been combined.

This research does not disclose all aspects of the problem raised, which necessitates their further study to discover some mechanisms for improving professional training of future physical education teachers under the new sociocultural conditions.

## Conclusions

The subjective anxiety of students about making mistakes is significantly reduced while modelling typical pedagogical situations, unlike under real conditions. Finally, the process of solving educational tasks is controlled by the teacher, who supervises, corrects and evaluates students' decisions.

This research proves the effectiveness of pedagogical conditions for ensuring the development of such readiness: creating an interactive environment at universities; promoting respect for the future profession; creating the situations of "immersing students in professional activities" through the complex approach to professional activities of subject teachers (interactive training sessions, workshops, individual consultations).

It determines technological procedures for implementing the methodology of the formative experiment with the use of interactive technologies and other means so that students can obtain complex professional skills as a component of readiness to solve typical professional tasks. It also verifies the effectiveness of this process.

It is confirmed that after the introduction of the author's model, more positive changes have occurred in the levels of its development in the EG. The effectiveness is also proved by some significant qualitative difference in the results of the EG and the CG. Indeed, the number of the EG students with a high level of readiness to solve typical professional tasks has increased by 33.7% compared to the CG. The EG students show higher indicators of the development levels of such readiness by motivation, values,



cognition, activity and reflection. The quantitative and qualitative interpretation of the obtained results confirms the effectiveness of the experimentally justified content of professional activities in professional training of future physical education teachers in higher education institutions in Ukraine.

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