

*cultural and humanitarian development of the country, in the context of general European trends, but with its own national, specific, primarily related to traditions, features. Foreign languages have been studied on Ukrainian lands since ancient times, traditions of foreign language education were formed, and its European background was traced. Foreign language education is distinguished by its interdisciplinary nature, since the study of a language accompanied by the study of a people's culture, its history and traditions forms the ability to navigate in a modern multicultural and information society. The main milestones in the development of foreign language education were the establishment of the Latin language, which dates back to the Middle Ages, the expansion of interaction between Europeans during the Renaissance (15th – 16th centuries), the establishment of the status of state foreign languages in European countries in the 16th – 16th centuries, the development of scientific and technical progress in the 17th – at the beginning of the 19th century, the revival of international trade and economic migration in the second half of the 19th century, geopolitical and social transformations after the Second World War. Today, Ukraine is moving towards the implementation of European-wide requirements for foreign language education. In the 21st century, against the background of democratization, integration processes, globalization, and the strengthening of migration processes, foreign language education is considered as a component of multicultural education; as a tool for the transition to multilingualism, orientation to the professional sphere.*

**Key words:** *foreign language education, professional education, foreign language professional education, higher education, foreign language professional training, professional competence, development, tendencies, single global information space, single global educational space, Ukraine.*

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## **ORGANIZATION AND ANALYSIS OF THE RESULTS OF AN EXPERIMENTAL STUDY OF THE FUNCTIONALITY OF PEDAGOGICAL CONDITIONS AND THE EFFECTIVENESS OF STRUCTURAL AND FUNCTIONAL MODEL OF TRAINING OF FUTURE EDUCATORS FOR PHYSICAL EDUCATION OF CHILDREN IN PRESCHOOL INSTITUTIONS**

*The purpose of the article is to consider the process and results of experimental work on the preparation of future educators for physical education of preschoolers. Research methods: traditional (theoretical analysis and generalization of data from scientific and methodological literature), specific (deductive, hypothetical-deductive, inductive methods); methods of mathematical and descriptive statistics, comparison of nominal data. Statistical analysis of experimental data obtained at all stages of research and experimental work, which confirmed the reliability of the results. Promising areas of further research are the problems of physical and health preparedness of educators in the system of advanced certification training.*

**Key words:** *research and experimental work, future educators, ascertaining, formative, final stages of the experiment.*

**Formulation of the problem.** Preschool age is a crucial period of human life in the formation of attitude to physical activity as an essential element of a healthy lifestyle. Determined physical education makes an important contribution to the process of psychomotor, mental and emotional development of preschool children. At the current stage of reformation of the national education system in Ukraine, the priority is to optimize the professional training of future teachers, including preschool educators. After all, the level of their readiness for teaching affects the success of educational process of children in preschool institutions on the basis of national values, among which the most important is strengthening and maintaining the health of the younger generation.

This requires the need of conducting a pedagogical experiment on the implementation of pedagogical conditions as well as on structural and functional model of preparation of future educators for physical education of children in preschool educational institutions (ZDO). Scientific and theoretical research, separation of pedagogical conditions and development of structural and functional model of preparation of future educators for physical education of children in preschool education, aimed at improvement, appropriate transformation of pedagogical reality, requires practical confirmation, verification, testing, which is carried out in specially organized experimental work .

**Analysis of current research.** The analysis of scientific sources showed that in psychological and pedagogical science much attention is paid to professional training, in particular such aspects as: philosophy of education (V. Andrushchenko, V. Kremen, V. Ognevyuk); professional competence of teachers (N. Bibik, N. Gluzman, O. Ovcharuk, O. Oleksyuk, O. Pometun, S. Sysoeva, L. Khoruzha). Regarding the problem of training educators of preschool institutions, scientists mostly characterize the concept of "professional competence" and substantiate some aspects of professional competence (G. Belenka, A. Bogush, N. Denisenko, O. Kononko, N. Lysenko, T. Ponimanska and others). ). Scientists are also studying the issues of professional training of specialists in physical education (V. Arefiev, S. Balbenko, M. Danylko, M. Zubaliy, N. Matskevich, T. Ovcharenko, O. Petunin, B. Shiyan, etc.), implementation personality-oriented technologies of teaching and education in higher pedagogical educational institutions (I. Bekh, O. Verbytsky, L. Sushchenko); psychological and pedagogical bases of training specialists in the field of physical education and sports (O. Fedik, A. Tsyos, etc.); preparation of students for physical education of preschoolers (O. Boginich, L. Volkov,

G. Koshel, N. Levinets, Z. Nesterova, S. Petrenko, L. Ryzhova, O. Shovkoplias, etc.). However, despite the scientific achievements of researchers on the problem of preparing future educators for physical education of preschoolers, this problem is not completely solved. The issue of preparation of future educators for physical education of children in preschool institutions requires special attention and careful search for effective ways to solve difficulties arising in the educational process.

**The purpose of the article** is to analyze the dynamics of changes in the formation of the readiness of future educators for physical education of children in preschool institutions during the period of formative pedagogical experiment.

**Research methods.** To achieve the goals and objectives of the study different approaches were used e.i traditional (theoretical analysis and generalization of scientific and methodological literature: abstraction, systematization, comparison and comparison) and specific research methods (deductive, axiomatic, hypothetical-deductive, inductive methods – to determine the structure of readiness of future educators to physical education of children, characteristics of readiness indicators and levels of its formation and development of a diagnostic map to assess the formation of the studied readiness; methods of descriptive statistics, methods of comparing nominal data. Study of measurement results was carried out by means of methods of mathematical statistics.

**Presenting main material.** The analysis of results of pedagogical research and theoretical approaches to the problem of preparing future educators for physical education of children in preschool institutions made it possible to build the logic of pedagogical experiment. The main features of pedagogical experiment are the changes of the conditions of observation of the phenomenon and its connection with other phenomena in order to clarify its nature, origin and management of this pedagogical process (Savitskaya, 2021). The use of the method of pedagogical experiment in research contributes to the consideration of certain aspects of preparation of future educators for physical education of children in ZVO with disclosure of the causes and consequences of the research process based on its location in certain conditions (Sobchenko et al., 2021).

The purpose of the experimental work was achieved by solving the following tasks:

1. To develop a plan and determine the content of research and experimental work on the preparation of future educators for physical education of children in preschool educational institutions (ZDO).

2. To carry out planning and implementation of the ascertaining and formative stages of the experiment.

3. To define, develop and implement in the educational process pedagogical conditions and structural-functional model of preparation of future educators for physical education of children in ZDO (based on the integrated course "Physical education of preschool children with teaching methods");

4. To systematize diagnostic methods that allow to study the components, criteria, indicators and levels of readiness of future educators for physical education of children in preschool educational institutions (ZDO).

5. To carry out quantitative and qualitative analysis and interpret the results obtained in the process of experimental work.

Experimental research work was carried out during the 2018–2022 academic years in the natural conditions of the educational process of Volodymyr Hnatyuk Ternopil National Pedagogical University, Ivan Ogienko Kamyanets-Podilsky National University, Lesya Ukrainka Volyn National University, Taras Shevchenko Kremenets Regional Humanitarian and Pedagogical Academy, who train specialists in "Preschool Education" in three stages (ascertaining, formative, final). The stages of research and experimental work were interconnected and subordinated to a common goal and provided for the solution of specific tasks using certain methods and tools to achieve appropriate milestones.

Let us consider some features of each stage.

The first stage of the experimental work (2018–2019 academic year) involved a *confirmatory experiment* aimed at identifying the initial level of readiness of future educators for physical education of children in preschool educational institutions (ZDO). In order to establish the readiness of 121 students of the 4th year of the faculty "Preschool Education" – future educators – for physical education of children in ZDO diagnosed and established levels of formation of all components and general readiness of future educators at the ascertaining stage of experimental research.

Measurement of the level of readiness of future educators for physical education of children in preschool educational institutions (ZDO) according to these indicators was carried out using selected appropriate diagnostic methods and techniques:

1) *motivational and value component* – questionnaire to determine the need and motivation for physical education (author's development) choice of profession, methodology in relation to "Motives of choosing the profession" (modified by the author by V. Semichenko), author's

questionnaires "Motivation for physical, health and pedagogical activities of students" and "Why did I choose the profession of an educator? ";

2) *cognitive* – assessment tool to determine the level of knowledge of future educators on physical education of children in ZDO, a questionnaire to check the awareness of students' knowledge of physical culture and health and pedagogical activities with children in ZDO (author's development);

3) *action* – author's developments: questionnaire "Determining the level of readiness of future educators for physical education of children in ZDO", methodology in relation to "Number of mastered actions depending on the level of completeness of physical education and pedagogical skills of future educators", questionnaire "Self-assessment of professional skills of future educators of preschoolers ";

4) *personal* – a method of diagnosing the level of reflexivity (questionnaire A. Karpov), a test questionnaire for self-assessment of self-education and self-development (adapted from T. Telichko), a methodology in relation to "Structure of orientation of preschool teachers" (adapted from V. Semichenko).

These techniques were used at all stages of experimental work in order to identify in the process of the formative experiment the dynamics of the readiness of future educators for physical education of preschool children. The set of selected diagnostic methods and the ratio of evaluation of data obtained by these methods with the criteria and indicators for assessing the levels of formation of future educators of readiness for physical education of children in ZDO can be generalized that their use provides reliable assessment of research results.

The study showed that only 29 (23.97 %) students show a high level at the ascertaining stage of the pedagogical experiment; sufficient level – 54 students of the faculty "Preschool Education" (44.63 %), satisfactory – 38 future educators (31.40 %), while a low level was not detected among future teachers of ZDO, who participated in the observational experiment. The results of the study obtained at the observational stage of the experiment confirmed the need for purposeful formation of future educators' readiness for physical education of preschoolers by implementing certain pedagogical conditions and developed structural and functional model of future educators' preparation for physical education in ZDO which became the basis for the research and experimental work – within the *formative stage of the study* (2019–2021).

The formative stage of research and experimental work was carried out on the basis of Volodymyr Hnatiuk Ternopil National Pedagogical University, Ivan Ogienko Kamyanyets-Podilsky National University, Lesya Ukrainka Volyn National University and provided for the selection of experimental (EG) and control (CG) groups of students III and IV years of education, which were statistically homogeneous and approximately equal in terms of starting opportunities.

The formative stage of research and experimental work involved the implementation of pedagogical conditions in EG and the introduction of structural and functional model of preparation of future educators for physical education of children in ZDO by applying a set of diverse, varied and even closely interrelated methods that ensure, on the one hand, planned results, and on the other – contextual diagnosis of the dynamics of the formation of students' readiness for physical education of preschool children.

Implementation of certain pedagogical conditions and the developed structural and functional model of preparation of future educators for physical education of children in ZDO were tested within the study of disciplines "Theory and methods of physical education and valeological education", "Methods of teaching social and health preserving sphere", "Methods of teaching physical education", "The experimental research (within the discipline "Physical Culture") also took into account the special motor training of students to master the technique of basic movements; the desire of future educators to increase the level of physical fitness; ability to diagnose one's own physical fitness; to analyze and build work on the development of physical qualities of children in the conditions of ZDO. Such training contributed to the development of students' general and static endurance, coordination of movements, high emotional stability, initiative, ingenuity, ability to act effectively in conditions of mental, physical and psychological stress.

The implementation of the pedagogical conditions identified within the study took place comprehensively within three stages:

– *preparatory* (motivation to learn this profession, encouraging students of year 1-3 to work with children on the basis of demonstration physical education, leisure, holidays in preschool institutions; formation of the concepts of "physical qualities"; "readiness of students");

– *basic* (using problem-development exercises "Physical qualities", "Relationship of unity of intellectual and physical development of preschool children", construction of complexes of basics of motor activity and moving games, which allowed students to understand the internal

psychological and pedagogical mechanism of physical qualities of children; organizing by year 4 students sports and mass events aimed at forming children's knowledge about their health, fitness and functions of the body, the desire to engage in various sports with the participation of children, parents, educators);

– *final* (formation of professional and practical skills of students during laboratory classes in the discipline "Theory and methods of physical education and valeological education", pedagogical practice in the system of ZDO; students' speeches at scientific conferences on physical education, implementation of health technologies in preschool education).

Within the framework of experimental work, the determined pedagogical conditions and the structural-functional model were tested in two spheres of students' life activity, which constitute the content of the educational process in which readiness of future educators for physical education of children in ZDO is formed: educational (educational process, educational and research activities, pedagogical practice) and extracurricular.

1. Educational activity (educational process). In lectures on selected disciplines for experimental research ("Theory and methods of physical education and valeological education", "Methods of teaching social and health social sphere", "Methods of teaching physical education") future educators learned about the features and patterns of physical and motor development of children, the specifics of the formation of the foundations of a healthy lifestyle in preschool children, got acquainted with health technologies, the main forms of organization of health activities in health care and family. In practical classes, future educators mastered the competencies in organizing various forms of physical education for children (morning gymnastics, moving games, physical entertainment, etc.), mastered the technology of summarizing classes, games, physical entertainment, developed their own options for various physical activities of children and presented them to the students' audience.

2. Scientific research activities. The results of students' activities were interesting and practically significant methodological developments and materials: cycles of cognitive activities, leisure and entertainment that will help educate children in the basics of a healthy lifestyle; workshops and trainings for parents, existing family clubs; files of moving games and exercises, systematized catalogues of solving specific tasks (development of physical qualities, formation of basic movements, motor creativity, etc.); modified and author's programs on physical education of children in ZDO.

3. Pedagogical practice. The integrated theoretical knowledge obtained during the development of disciplines, exchange of experience between practicing educators and students were used and consolidated during pedagogical practice (speeches at parent meetings, individual interviews with parents, educators, pupils, analysis of physical culture and health activities in ZDO, etc.) .

4. Broad-spectrum university and faculty events of health and sports nature (sports festival, sports contests, sports competitions, actions and competitions).

Verification of the effectiveness of pedagogical conditions and the effectiveness of the structural and functional model of preparation of future educators for physical education of children in ZDO was carried out at the *final stage*. In order to identify the final indicators of the preparation of future educators for the physical education of children in ZDO, a similar criterion-evaluation apparatus was used as at the ascertaining stage of the study. Therefore, the logic of the final stage involves a consistent assessment of the formation of all components of the readiness of future educators for physical education of children in preschool educational institutions (ZDO) and compare the results of the ascertaining and final stages of the pedagogical experiment.

The analysis of the results of the formative stage of the experiment on the increase in the level of readiness of future educators for physical education of children in the ZDO (Table 1) allows us to make the following generalizations.

Firstly, the largest increase in the number of students who have a high level of readiness of future educators for physical education of children in ZDO was observed in EG and amounted to 18.19 %, which is 11.37 % more than the increase obtained in CG. Secondly, a larger increase in the number of students who showed a sufficient level of formation of the studied readiness was recorded in EG – 11.01 %, which is 6.47 % more than the increase obtained in CG. A comparison of the obtained data on satisfactory and low levels of readiness of future educators for physical education of children in ZDO shows that the greatest decrease in their formation is also observed in EG and is 21.82 % and 7.28 %, and in CG only 6.82 % and 4.55 % respectively.

**Increase in the level of readiness of future educators for physical education of children in ZDO (%) in EG and CG according to the results of the formative experiment**

Readiness levels		High	Sufficient	Satisfactory	Low
groups	CG	+ 6.82%	+ 4.54%	- 6.82%	- 4.55%
	EG	+ 18.19%	+ 11.01%	- 21.82%	- 7.28%

Therefore, based on the results obtained in the study, we can say that in EG according to the results of participation in the experimental study there were fixed quantitative and qualitative changes in all levels of readiness of future educators for physical education in children based on pedagogical conditions of future educators of physical education of children in ZDO.

The reliability of the results of experimental research has been proven using the methods of mathematical statistics by calculating variances to determine Fisher's F-test by formula 3.1 (Kiveryalg, 1980, p. 277):

$$F_{emp} = \frac{\sigma_1^2}{\sigma_2^2} \quad (3.1),$$

where  $\sigma_1^2$  – greater variance, and  $\sigma_2^2$  – smaller variance, which were calculated by formula 3.2:

$$\sigma^2 = \frac{\sum f(x_i - \bar{x})^2}{N} \quad (3.2),$$

where  $f$  – is the number of students who have a certain level of readiness of future educators for physical education of children in ZDO;

$(x_i - \bar{x})$  – the difference between the values in points (5, 4, 3, 2) of the level of readiness of future educators for physical education of children in children and the value of the average (SP);

$N$  – is the number of CG or EG students where the variance is calculated.

The reliability of the obtained results was established by comparing the indicators of Fisher's empirical F-criterion for each category of groups ( $F_{emp-KG}$ ) and ( $F_{emp-EG}$ ) with the indicators of theoretical F-criterion ( $F_{krit}$ ) (Kiveryalg, 1980, p. 278). The number of degrees of freedom, provided that the number of students (for the denominator) will be in the range of 40–60 and in the range from 24 to infinity (for the numerator), in our study has indicators  $44 - 1 = 43$  and  $55 - 1 = 54$ . Therefore, according to

standardized tables (Kiveryalg, 1984, p. 278), the value of the F-criterion will be in the range of 1.8 – 1.4.

Results of the calculation of the empirical indicator of the F-criterion for CG and EG are shown in table 2.

Table 2

**Results of the calculation of the empirical indicator of the F-criterion for control (CG) and experimental groups (EG)**

Components of readiness	F-criterion for control group (CG)	F-criterion for experimental group (EG)
Motivation and value	1.24	1.49
Cognitive	1.25	1.41
Action	1.37	1.45
Personal	1.04	1.42
Readiness overall	1.18	1.42

Comparative analysis of the calculated empirical indicator of the Fisher CG criterion showed that  $F_{emp}$ -CG with a value of 1.24; 1.25; 1.37; 1.184 for various components and general indicators of formation of readiness of future educators for physical education of children in ZDO goes beyond the specified limits. For EG  $F_{krit}$  is in the range of 1.4 – 1.8:  $F_{emp}$ -EG with values of 1.49; 1.41; 1.45; 1.42; 1.42 confirms the reliability of the results.

An increase in the average from 3.91 to 3.738 (by 0.18 points) in CG and from 3.67 to 4.2 points (by 0.53 points) in EG indicates that in CG these changes are due to the natural influence of traditional educational process of learning, and in EG is the result of the implementation of the proposed in the dissertation research pedagogical conditions and the introduction of structural and functional model of training of future educators for physical education of children in ZDO. The generalized results of the experiment reflect the dependence of changes in quantitative and qualitative values of the levels of readiness for physical education of children in children with the implementation of pedagogical conditions and factors of psychological and pedagogical impact

**Conclusions and prospects for further scientific research.** Thus, pedagogical monitoring of preparation of future educators for physical education of children in ZDO was carried out using a set of diagnostic techniques that allowed to study the course and results of gradual development of all components of readiness for physical education of preschool children and observe the dynamics of its formation in students.

The integrity and effectiveness of the criterion-diagnostic apparatus used to assess the level of readiness for physical education of preschool children is ensured by the gradual formation of its components according to their indicators, best accumulates individual diagnoses, including author's, and education of preschool children in the professional training of future educators. The use of diagnostic apparatus at different stages of research and experimental work has provided a comprehensive study of the peculiarities of the training of future educators for the formation of their readiness for physical education of children in ZDO.

Received results can be used by students, research and teaching staff of the Free Economic Zone, as well as in the system of retraining and advanced training of future educators. Promising areas of further research are to consider the problems of physical training of educators in the system of advanced training, as well as expanding the diagnostic apparatus in assessing the effectiveness of the process of forming the readiness of future educators for physical education.

#### ЛІТЕРАТУРА

- Киверялг, А. А. (1980). *Методы исследования в профессиональной педагогике*. Таллин: Валгус. (Kyveryalg, A. A. (1980). *Research methods in professional pedagogy*. Tallinn: Valgus).
- Савіцька, В. В. (2021). Дослідження готовності студентів до використання електронних освітніх ресурсів в освітньому процесі університету. *Науковий часопис Національного педагогічного університету імені М. П. Драгоманова. Серія 5. Педагогічні науки: реалії та перспективи*, 82, 140–144. (Savitska, V. V (2021). Research of students' readiness to use electronic educational resources in the educational process of the university. *Scientific journal of the National Pedagogical University named after M. P. Drahomanov. Series 5. Pedagogical sciences: realities and perspectives*, 82, 140–144).
- Sobchenko, T., Bashkir, O., Panchenko, V., Smolianiuk, N., Osova, O., & Peretiaha, L. (2021). Training Future Teachers to Organize the Educational Process in the Conditions of Inclusive Education. *Revista Romaneasca Pentru Educatie Multidimensionala*, 13 (1), 114–132.

#### АНОТАЦІЯ

**Осіп Наталія.** Організація та аналіз результатів експериментального дослідження щодо дієвості педагогічних умов і результативності структурно-функціональної моделі підготовки майбутніх вихователів до фізичного виховання дітей у закладах дошкільної освіти.

У статті визначено, що найважливішим етапом наукового аналізу підготовки майбутніх вихователів до фізичного виховання дітей у закладах дошкільної освіти є педагогічний експеримент як одним з найефективніших способів об'єктивної перевірки достовірності гіпотези дослідження. Мета статті полягає у розгляді перебігу та результатів експериментальної роботи з підготовки майбутніх вихователів до фізичного виховання дошкільників. Методи дослідження: традиційні (теоретичний аналіз та узагальнення даних науково-методичної літератури), специфічні (дедуктивний, гіпотетико-дедуктивний,

індуктивний методи); методи математичної та описової статистики, порівняння номінальних даних. Розглянуто етапи проведення педагогічного експерименту (констатувальний, формувальний, підсумковий). Етапи дослідно-експериментальної роботи були взаємопов'язані та підпорядковані спільній меті та передбачали вирішення специфічних завдань з використанням певних методів та засобів задля досягнення відповідних етапних результатів. Здійснено статистичний аналіз експериментальних даних, отриманих на всіх етапах дослідно-експериментальної роботи, який підтвердив достовірність отриманих результатів. Педагогічний моніторинг підготовки майбутніх вихователів до фізичного виховання дітей у закладах дошкільної освіти здійснений з використанням комплексу діагностичних методик, які дали змогу вивчити хід і результати поетапного розвитку всіх компонентів готовності студентів до фізичного виховання дошкільнят та спостерігати динаміку її формування у студентів. Цілісність і дієвість критеріально-діагностичного апарату, який застосовувався для оцінки рівня формування готовності до фізичного виховання дошкільнят, забезпечена поетапністю формування її компонентів за їхніми показниками, найкращим чином акумулює в собі окремі діагностики, зокрема й авторські, та уможлиблює повне відображення процесу формування готовності до фізичного виховання дошкільнят у фаховій підготовці майбутніх вихователів. Перспективними напрямками подальших наукових пошуків є розгляд проблем фізкультурно-оздоровчої підготовки вихователів у системі підвищення кваліфікації.

**Ключові слова:** дослідно-експериментальна робота, майбутні вихователі, констатувальний, формувальний, підсумковий етапи експерименту.

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## **ПСИХОЛОГІЧНА ПІДГОТОВКА ЛЕГКОАТЛЕТІВ ДО ЗМАГАЛЬНОГО ПЕРІОДУ В УМОВАХ СУЧАСНОГО СПОРТУ**

У статті розглянуто проблему психологічної підготовки легкоатлетів до змагального періоду в умовах сучасного спорту. Виокремлено критерії формування спортивного характеру; описано складові загальної психологічної готовності спортсмена до змагань.. Представлено передзмагальний період, який має чотири фази за рівнем активації та передстартової напруженості: перша фаза включає тривалий період і починається, коли спортсмен приймає рішення про виступ у конкретних змаганнях; друга фаза охоплює короточасний період – від тренування до змагання; третя фаза – стартовий стан – настає при включенні спортсмена в атмосферу змагань; остання фаза – активації безпосередньо у змагальній діяльності. Описано метод