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Academic Mobility of Students of Philological Specialisations in the Structure of Polylingual Intercultural Education

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Abstract. The relevance of the study of student mobility in the academic space is determined by the possibilities of implementing education outside one country, as well as the possibility of the establishment and development of cross-cultural communication. The purpose of this study is to determine the effectiveness of pedagogical conditions for the development of professional mobility of future teachers of foreign languages in the educational environment of the university. In the course of the research, a pedagogical experiment was conducted using monitoring, the statistical method, the method of collecting and processing data, as well as diagnostics and testing. In total, 722 students of II-IV years of the first educational level, a bachelor of a philological university, specialising in "Philology (foreign language and literature)", took part in the study. The study describes the main pedagogical conditions for the development of the professional mobility of future teachers of foreign languages in the educational sphere of the university. An empirical study was carried out, the essence of which was in the process of development of the professional mobility of future teachers of foreign languages by introducing and studying the discipline "Mobility as a path to success". Paired Student's t-test was calculated to determine changes in data at different stages of the study. The positive influence of certain pedagogical conditions on the general state of preparedness of students of higher educational institutions was revealed. It was found that the professional mobility of future teachers of foreign languages is determined by the personal, activity, and cognitive communication components. Three levels of development of professional mobility were investigated in accordance with the indicated components. The unpreparedness of future teachers of foreign languages for active professional mobility in accordance with the requirements of the innovative modern educational space was revealed. Research prospects are in the further improvement and implementation of the discipline "Mobility as a path to success" in higher educational institutions with a philological orientation

Keywords: motivation, personality development, pedagogical activity, professional mobility, educational process

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INTRODUCTION

One of the main documents that regulates the work of the university is the standard of professional training of teachers [1]. This document makes the basis for the training of future teachers of philological specialisations [2]. In 2017, educational and professional training programmes for specialists of the educational qualification level "bachelor" in the specialisation of Philology (foreign language and literature) were analysed, and during the analysis, it was

found that the educational process of future teachers of foreign languages is focused on training a subject teacher, which does not correspond to the tasks set by society, such as: to be ready for professional activity in an innovative educational environment [3].

Modern education requires a thorough preparation of the future teacher of a foreign language, in particular deep knowledge from various courses, which should be

aimed at work in the current conditions [4]. Methodological aspects of teaching, theoretical and philological courses and special courses, requirements for these courses, their structure, methodological principles of construction, teaching, developmental and educational value, selection of educational material for philological courses, selection criteria: fundamentality, relevance, availability of material, etc., should be coordinated and focused on the successful training of future teachers of foreign languages in the educational environment of the university [5]. These pedagogical conditions, the introduction of which occurs through a change in the conventional teaching process and the combination of knowledge from several related industries [6], are a complementary part of the system for the development of professional mobility of future foreign language teachers in the educational environment of the university.

It should be noted that the need for professional self-development is primary in the process of developing the professional mobility of future teachers of foreign languages in the educational environment of the university [7]. This need originates from the general motivation of the pedagogical activity of a specialist, from the attitude of the individual to professional requirements [8]. The importance of actualisation and development of students' motivation for self-development are fundamental psychological and pedagogical theories and concepts stating that any impact on a person should be consistent with his or her needs, interests, beliefs [9]. Conscious motivation contributes to the intensification of the cognitive activity of the future specialist, the achievement of a certain level of professional training, and the mobilisation of his potential [10]. Motivation for self-development is an integral part of professional training and is the result of the student's conscious interaction with the educational environment of the university, in the process of which the future teacher of a foreign language meets his own needs to develop personal qualities that ensure the success of his professional activity and life in general [11]. The implementation of this pedagogical condition is possible due to mini-lectures [12], which contribute to the formation of positive motivation for self-development [13] and are aimed at the development of indicators of the personal component of professional mobility of future teachers of foreign languages in the educational environment of the university [14].

The mastery of a system of knowledge about the essence and significance of professional mobility by future teachers creates a methodological foundation that contributes to the development of personality, the assimilation and awareness of the conceptual and categorical apparatus by students. Its projection on future professional and pedagogical activities will contribute to an adequate assessment of professional situations that will arise in the process of their future activity and the transformation of philosophical, psychological, pedagogical, cultural knowledge into practically effective personal decisions [15; 16].

Evidently, the lack of the need to systematically replenish one's knowledge and creatively apply it in the innovative environment of society [17], the unwillingness of future teachers to master interdisciplinary skills, the

lack of positive motivation for self-development [18], the construction of an educational environment, which is not based on communication [19], are relevant pedagogical problems today, as a result of which the purpose of this work was formulated: determining the effectiveness of pedagogical conditions for the development of professional mobility of future teachers of foreign languages in the educational environment of the university.

MATERIALS AND METHODS

To achieve this purpose, an empirical study (pedagogical experiment) was carried out, the essence of which was the process of forming the professional mobility of future teachers of foreign languages in the educational environment of the university by introducing and studying the discipline "Mobility as a path to success" [20]. Under the study of the discipline, it was envisaged to undergo two successive stages, in particular, motivational and organisational, and activity. At the motivational and organisational stage, motives, conditions, and factors that affect the development of the professional mobility of future teachers of foreign languages are determined [21]. At this stage, students are informed about the essence of professional mobility, its components, characteristic features of other types of mobility; the emphasis is also placed on the development of strategic competence in teaching a foreign language [22]. The activity stage is dedicated to the actual development of intellectual abilities, the formation of competencies and personal qualities during the implementation of projects, solving problems-cases [23].

722 students of the II-IV years of the first educational level, bachelor of the philological university, specialising in "Philology (foreign language and literature)" took part in the pedagogical experiment. The total number of students was divided into two samples: experimental and control. The control group consisted of 285 students who were trained according to the conventional method. The experimental group consisted of 437 students, whose training consisted of the purposeful implementation of certain pedagogical conditions for the development of professional mobility of future teachers of foreign languages. Thus, the empirical study was carried out in several stages: summative, formative, and control.

The essence of the *summative stage* of the pedagogical research was to determine the initial state of readiness of the students of the experimental and control groups for professional mobility. The results of the summative experiment confirmed the validity of the assumption about the need to introduce the university pedagogical conditions in the educational environment for the formation of professional mobility among future teachers of foreign languages, such as actualisation and development of students' motivation for self-development due to taking into account the individual psychological characteristics of students; bringing the process of students' communication to the practical activities of a foreign language teacher, aimed at the development of professional mobility; strengthening interdisciplinary connection among academic disciplines in the educational environment of the university.

The second, *formative stage*, was carried out during 2016-2019. Its task was based on improving the research objective by checking the effectiveness of the introduction of pedagogical conditions for the development of professional mobility of future teachers of foreign languages in the educational environment of the university through the introduction of the developed theoretical and methodological support for the process of teaching professional disciplines, in particular, optimising the forms and methods of teaching pedagogical disciplines, attracting students to research and academic work on relevant topics, solving social and pedagogical problems in the process of practical training, etc.

Notably, in the course of organising and conducting the study to determine the initial state of readiness of students in the experimental and control groups for professional mobility, *the following provisions were taken into account*:

- preparation of university students contains a complex of interrelated and interdependent components that contribute to the study of the dynamics of criteria for the professional mobility of future teachers of foreign languages, taking into account the specifics of their indicators;
- the need to verify the feasibility and effectiveness of the complex implementation of the set tasks of experimental work made it possible to compare the results of the experiment;
- reliable results are provided by carrying out mathematical calculations of the data obtained through the use of a set of complementary methods.

At the *control stage* of the experiment, the effectiveness of the pedagogical conditions for the development of professional mobility of future teachers of foreign languages in the educational environment of the university was examined; the study was carried out using diagnostic

procedures. This stage of the study provided for comparison of the results obtained in the experimental (EG) and control groups (CG), as well as the current monitoring of qualitative changes in the completeness of the studied phenomenon and its components. For the experimental and control groups, uniform requirements and evaluation criteria were developed at each stage of the experimental work, which were subject to comparison during the experiment. To diagnose students at the control stage of the experiment, the same diagnostic tools were used as at the summative stage of the experiment: to identify the level of self-esteem of future teachers of foreign languages in the educational environment of the university, diagnostics of the level of self-development and professional and pedagogical activity was used; testing “Willingness for self-development”; G. Amthauer's intelligence test; a diagnostic technique for the study of communicative and organisational skills.

In the course of the study, in order to obtain objective results, such *components of professional mobility* as personal, activity, and cognitive and communicative, as well as levels of *completeness of professional mobility*, such as reproductive, basic, and productive, were used. To confirm the importance of introducing pedagogical conditions for the development of professional mobility in future teachers of foreign languages, the calculation of the Student's t-test was used.

RESULTS AND DISCUSSION

At the first summative stage, the results of the study were demonstrating almost the same indicators in the experimental and control groups. It follows from this that the preparation of students for the development of professional mobility with a personal component is at an overwhelming reproductive level (EG – 54.7%, CG – 53.36%). Thus, Table 1 presents the arithmetic mean data.

Table 1. Levels of completeness of professional mobility at the summative stage (number of students in %)

Components	CG			EG		
	Reproductive	Basic	Productive	Reproductive	Basic	Productive
Personal	53.36	26.93	19.71	54.7	26.92	22.26
Activity	61.10	34.20	4.70	64.80	30.50	4.7
Cognitive and communicative	51.40	43.70	4.90	51.40	42.60	6.0
Average level	55.3	34.9	9.77	57	33.3	11

The productive level of complete professional mobility with a personal component is low both in the experimental and control groups: EG – 22.26%, CG – 19.71%. The basic level of completeness was reached by 26.92% of students in the experimental group and 26.93% in the control group. The difference in the development of professional mobility in terms of the activity component is not significant. The overwhelming majority remains at the reproductive level (EG – 66.80%, CG – 61.1%). The productive level of the complete professional mobility in terms of the activity component is low both in the experimental and control groups: EG – 4.7%, CG – 4.7%. The basic level of completeness was reached by 30.5% of students in the experimental group and 34.20% in the control group. This tendency persists in the development of professional mobility with

a cognitive and communicative component. The reproductive level in the EG – 51.4%, in the CG – 51.4%. The productive level of the complete professional mobility with a cognitive and communicative component in the EG – 6%, in the CG – 4.9%. The basic level of completeness was reached by 42.6% of students in the experimental group and 43.7% in the control group.

Since the statistical data in the two groups are similar, such data will be considered as the result of the summative stage: productive level – 9.77% (personality component – 19.71%, cognitive and communicative component – 4.9%, activity – 4.7%); basic level – 39.94% (personality component – 26.93%, cognitive and communicative component – 43.7%, activity component – 34.2%); reproductive level – 55.29% (personality component – 53.36%, cognitive and communicative

component – 51.4%, activity component – 61.1%).

Since the main indicator by which the learning process in the experimental and control groups significantly differed was the introduction of pedagogical conditions, the author of this study can conclude that the professional motivation of future teachers of foreign languages changes under the influence of experimental learning in the educational environment of the university. In the experimental groups, the number of students who see the importance and meaning of future professional mobility and know the importance of self-development and self-realisation for

successful pedagogical activity has increased. As is evident, 48.8% of students from the EG as opposed to 15.6% of the CG.

The numerical data of the table confirm the growth of the level of professional mobility of future teachers of foreign languages in case of the introduction of pedagogical conditions. In the control group, the quantitative growth of indicators is less pronounced. Comparative data reflecting changes in the indicators of the criteria for the development of professional mobility of future teachers of foreign languages before and after the formative experiment are presented in Table 2.

Table 2. Levels of completeness of professional mobility before and after the formative experiment in the control and experimental groups

Levels of professional mobility	CG			EG		
	1 st assessment in %	2 nd assessment in %	Increase	1 st assessment in %	2 nd assessment in %	Increase
Reproductive	55.3	28.6	-26.7	57	18.6	-38.4
Basic	34.9	41.06	+ 6.16	33.3	43.23	+9.93
Productive	9.77	30.3	+21.3	11	38.7	+27.7

The statistical data on the completeness of each of the levels of professional mobility, given in Table 2, allow us to conclude that almost 39% of future teachers of foreign languages in the EG reached the productive level of completeness of professional mobility, 42.23% of students demonstrate the basic level of complete professional mobility, and only 18.67% showed a reproductive level at the end of the experiment. A comparative analysis of the results of the complete professional mobility of future teachers of foreign languages in the experimental and control groups for each of the selected criteria after the formative stage of the experiment gives grounds to assert that an important factor in the development of professional mobility is the introduction of the pedagogical conditions highlighted in the study.

The study of the effectiveness of the implementation of grounded pedagogical conditions for the development of professional mobility of future teachers of foreign languages

in the educational environment of the university, which was conducted based on comparing the indicators of the experimental and control groups at different stages of training, recorded a significant increase in the levels of professional mobility among students in the experimental compared with the control group. Experimental approbation of the course “Mobility as a path to success” in the preparation of II and III years of bachelor students confirms its effectiveness.

From Figures 1-3 can be evident that after the introduction of pedagogical conditions for the development of professional mobility in the experimental group, there were rather tangible changes in the levels, while in the control groups they were insignificant. The results of the levels of completeness of professional mobility of future teachers of foreign languages after the formative stage of the experiment in the control and experimental groups in terms of the personality component are shown in Figure 1.

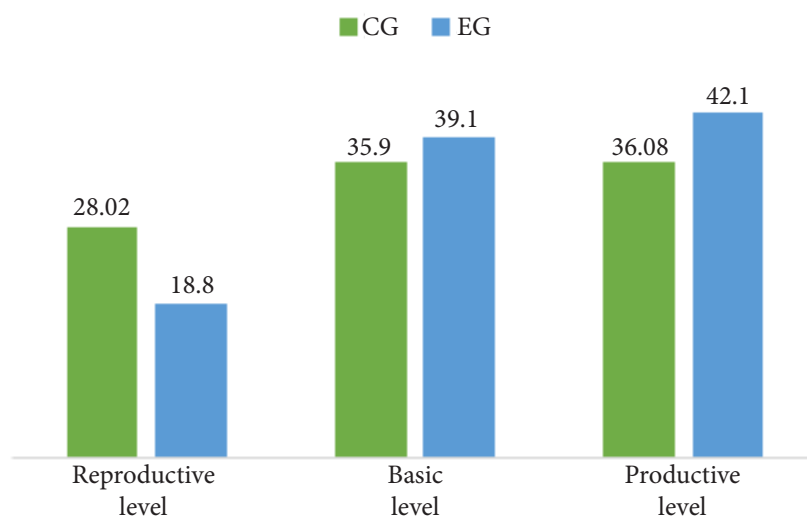


Figure 1. Levels of completeness of professional mobility of future teachers of foreign languages after the formative stage of the experiment in the control and experimental groups according to the personality component

According to the results of repeated diagnostics, the following level-specific manifestations of the completeness of professional mobility among future teachers of foreign languages were revealed: according to the incentive criterion at the productive level, it was revealed in the EG – 42.1%, and in the CG – 36.08%; with a basic level in the EG – 39.1%,

and in the CG – 35.9%, with a reproductive level in the EG – 18.8%, and in the CG – 28.02%. At the same time, the levels of completeness of professional mobility of future teachers of foreign languages after the formative stage of the experiment in the control and experimental groups in terms of the activity component can be seen in Figure 2.

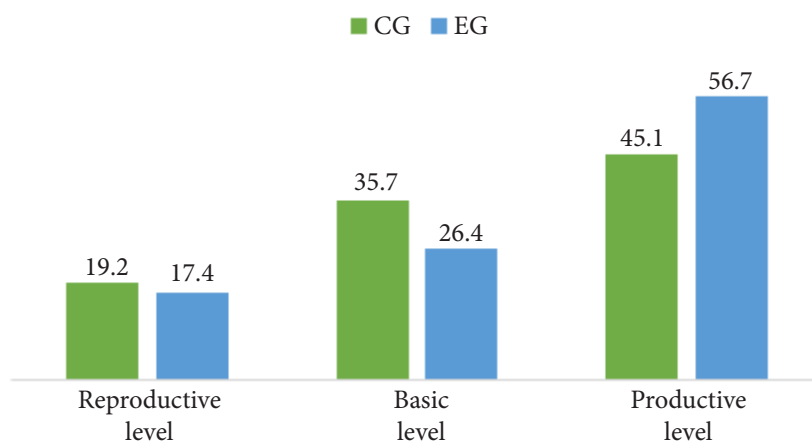


Figure 2. Levels of completeness of professional mobility of future teachers of foreign languages after the formative stage of the experiment in the control and experimental groups according to the activity component

According to the procedural criterion at the productive level, it was revealed 56.2% in the EG, and 45.1% in the CG; at the basic level in the EG – 26.4%, and in the CG – 35.7%, at the reproductive level in the EG – 17.4%, and in the CG – 19.2%.

According to the cognitive and communicative criterion at the productive level, 17.8% of students in the EG and 9.6% in the CG were revealed; the basic level was stated in the EG – 62.4%, and in the CG – 51.6%, the reproductive level in the EG – 19.8%, and in the CG – 38.8% (Fig. 3).

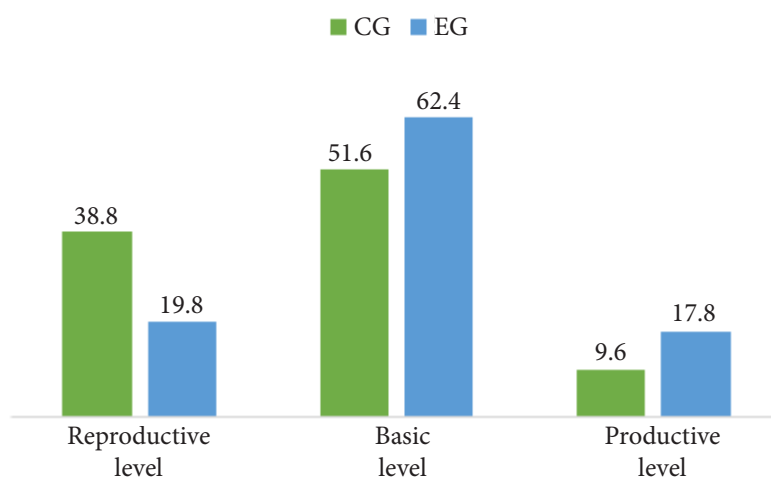


Figure 3. Levels of completeness of professional mobility of future teachers of foreign languages after the formative stage of the experiment in the control and experimental groups according to the cognitive and communicative component

Statistical processing of the results after the formative stage of the experiment stated that there were positive dynamics of changes in all components of the professional mobility of future teachers of foreign languages in the experimental group in comparison with students from the control group, where the process of professional training took place without the introduction of experimental pedagogical conditions. The number of students in the experimental group with a productive level has significantly increased (personality component (+6.02%); cognitive and communicative

component (+3.6%); activity component (+51.5%); and the basic level (personality (+12.18%); cognitive and communicative (+21.6%); activity (-9.3%) of completeness of each component of professional mobility. The number of students with a reproductive level of completeness of professional mobility has decreased (personality component (-35.9%); cognitive and communicative component (-31.6%); activity component (-47.4%) The dynamics of the levels of completeness of components of professional mobility of future teachers of foreign languages is presented in Table 3.

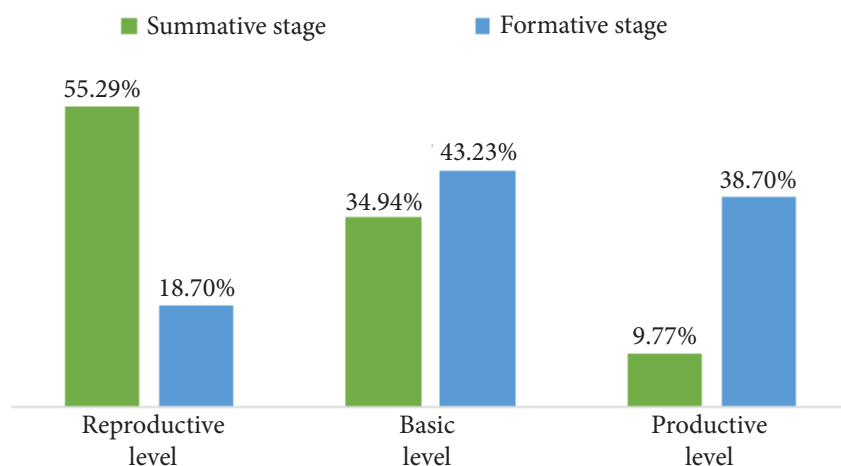
Table 3. Dynamics of the levels of formation of professional mobility components of future teachers of foreign languages (number of students in %)

Components	Reproductive level			Basic level			Productive level		
	CG	EG	Disparity	CG	EG	Disparity	CG	EG	Disparity
Personal	28.02	18.8	-9.22	35.9	39.1	3.2	36.08	42.1	6.02
Cognitive and communicative	38.8	19.8	-19	51.6	64.2	12.6	9.6	17.8	8.2
Activity	19.2	17.4	-1.8	35.7	26.4	-9.3	45.1	56.2	11.1

Thus, 39% of students in the experimental group and only 25.6% in the control group have reached the productive level of professional mobility of future teachers of foreign languages. The final indicator of professional mobility of future teachers of foreign languages of the basic level was, respectively, 43.23% (CG) and 41% (EG), reproductive – 28.67% (CG) and 18.6% (EG). The willingness of students from the EG is characterised by a high level of independence, objectivity, the ability to transfer the formed skills to new changing situations of the learning process. Future foreign language teachers are aware of

the importance of professional mobility, its impact on the establishment and development of the individual.

Thus, the growth dynamics of the development of professional mobility of future teachers of foreign languages in the experimental group, in comparison with the students of the control group, confirm the effectiveness and relevance of the introduced pedagogical conditions. The dynamics of the development of the professional mobility of future teachers of foreign languages in the educational environment of the university are represented graphically in Figure 4.

**Figure 4.** Dynamics of the completeness of professional mobility of future teachers of foreign languages in the educational environment of the university

Notably, during the experimental work, it was impossible to achieve high results, since there were time constraints. Therefore, more attention should be paid to the preparation of future teachers of foreign languages for the development of professional mobility. To assess the statistical reliability of the revealed differences in the levels

of completeness of professional mobility of future teachers of foreign languages in the educational environment of the university in the CG and EG, the paired Student's t-test was used to determine the statistical values of different paired (repeated) changes (Table 4). Let us calculate the difference of each pair of values (d) (Table 5).

Table 4. Calculation of Student's t-test

Components	Levels	EG before the experiment	EG after the experiment
Personal	Productive	19.71	42.1
	Basic	26.93	39.1
	Reproductive	53.36	18.8
Activity	Productive	4.7	52.6
	Basic	34.2	45.1
	Reproductive	61.1	17.4
Cognitive and communicative	Productive	4.9	17.8
	Basic	43.7	62.4
	Reproductive	51.4	19.8

Table 5. Calculation of the difference in pairs of values

Components	Levels	EG 1	EG 2	d
Personal	Productive	19.71	42.1	22.39
	Basic	26.93	39.1	12.17
	Reproductive	18.8	53.36	34.56
Activity	Productive	4.7	52.6	47.9
	Basic	34.2	45.1	10.9
	Reproductive	61.1	17.4	-43.7
Cognitive and communicative	Productive	4.9	17.8	12.9
	Basic	43.7	62.4	18.7
	Reproductive	51.4	19.8	-31.6

The main condition for the application of this method of statistical verification is the dependence of the choice, which should be used with repeated measurements of one parameter. Paired Student's t-test is calculated using the following formula (1):

$$t = \frac{Md}{\sigma d / \sqrt{n}} \quad (1)$$

where Md is the arithmetic mean of the difference between the indicators changed before and after, σd is the mean square

$$Md = \sum \frac{d}{n} = \frac{22.39 + 34.56 + 12.17 + 47.9 + 10.9 - 43.7 + 12.9 + 18.7 - 31.6}{9} = 9.358 \quad (3)$$

Let us find the root-mean-square deviation of differences from the average by the formula (4):

$$\sigma d = \sqrt{\frac{\sum (d - Md)^2}{n - 1}} = \sqrt{\frac{220.284964}{8}} = 5.25 \quad (4)$$

Now, the paired Student's t-test can be calculated using the following formula (5):

$$t = \frac{Md}{\sigma / \sqrt{n}} = \frac{9.358}{5.25 / \sqrt{8}} = 5.04 \quad (5)$$

At the last step of this statistical processing, the critical and calculated values of the obtained criterion must be compared:

1) if the calculated value of the paired Student's t-test is equal to or greater than the critical value found in the table, it can be concluded that the differences between the compared values are statistically significant;

2) if the value of the calculated paired Student's t-test is less than the tabular one, the differences in the compared values are statistically significant.

Let us compare the obtained value of the Student's t-test of 5.04 with the table value, which with the number of degrees of freedom f is equal to $9 - 1 = 8$, and with the significance level $p = 0.05$ is 2.262. Since the obtained value is greater than the critical one, the author concludes that there are statistically significant results of the introduction of pedagogical conditions for the development of professional mobility among future teachers of foreign languages from the CG and the EG, namely, the statistical results of the conducted pedagogical experiment are reliable.

According to the results of the study, it was found that the professional mobility of future teachers of foreign languages is determined by the following components:

difference of the indicators, n is the number of studies.

The interpretation of the obtained value of the paired Student's t-test does not differ from the assessment of the t-test for unrelated populations. First of all, the number of degrees of freedom f has to be calculated by the formula 2):

$$f = n - 1 = 9 - 1 = 8 \quad (2)$$

The next step is to calculate the arithmetic mean by the formula (3):

personal, activity, cognitive and communication. In accordance with them, a method for diagnosing the completeness of professional mobility of students of the II-IV years of the specialisation "Philology (foreign language and literature)" was developed, which was based on the study of components through selected criteria, such as incentive, procedural and cognitive and communicative. The developed methodology for determining the level of professional mobility of future teachers of foreign languages provided for three levels of completeness of the studied phenomenon: productive, basic, reproductive. The results of monitoring the levels of completeness of professional mobility showed that a significant number of future teachers of foreign languages are not ready for professional mobility, since they lack theoretical knowledge and practical training.

CONCLUSIONS

Taking into account the results obtained, a way for the introduction of pedagogical conditions for the development of professional mobility for students of the II-IV years of the specialisation "Philology" (foreign language and literature) was developed at the summative stage of the experiment, which provides for a two-level training system, i.e., theoretical and practical. The introduction of certain pedagogical conditions had a positive effect on the general state of the willingness of students of higher educational institutions for professional mobility. Thus, in the formative stage of the experiment, the results showed significant changes in the level manifestation of the completeness of criteria for the professional mobility of future teachers of foreign languages. At the control stage, comparing to the summative stage, a percentage increase in the number of students in the experimental group with a basic level of

completeness of professional mobility was established, in particular, an increase of 19.8%, and there was an increase of 8.9% among students at a productive level. There were minor changes in the control group. The number of students at the productive level increased by 1.8%, at the basic level by 2.8%, and the number of people at the reproductive level decreased by 3.8%.

As a result of using the course “Mobility as a path to success”, there were positive dynamics in the levels of completeness of professional mobility of future teachers of foreign languages in the educational environment of the university, which indicates that the pedagogical conditions used are effective and can be introduced into the educational process of higher education institutions.

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Академічна мобільність студентів філологічних спеціальностей у структурі полілінгвістичної міжкультурної освіти

Анотація. Актуальність дослідження мобільності студентів в академічному просторі визначається можливостями реалізації освіти поза межами однієї країни, а також можливістю становлення та розвитку крос-культурної комунікації. Метою роботи є визначення ефективності педагогічних умов формування професійної мобільності майбутніх вчителів іноземних мов в освітньому середовищі університету. У ході дослідження було проведено педагогічний експеримент з використанням моніторингу, статистичного методу, методу збору й обробки даних, а також діагностики та тестування. Усього в дослідженні взяло участь 722 студента II–IV курсів першого освітнього рівня бакалавр філологічного університету спеціальності «Філологія (іноземна мова та література)». У статті охарактеризовано основні педагогічні умови для формування професійної мобільності майбутніх вчителів іноземних мов в освітній сфері університету. Проведено емпіричне дослідження, суть якого полягала в процесі формування професійної мобільності майбутніх вчителів іноземних мов шляхом впровадження та вивчення дисципліни «Мобільність як шлях до успіху». Обраховано парний t-критерій Ст'юдента для визначення змін даних на різних етапах дослідження. Виявлено позитивний вплив певних педагогічних умов на загальний стан підготовленості студентів вищих навчальних закладів. З'ясовано, що професійна мобільність майбутніх вчителів іноземних мов визначається особистісним, діяльнісним і когнітивно-комунікаційним компонентами. Досліджено три рівні сформованості професійної мобільності відповідно до зазначених компонентів. Виявлено неготовність майбутніх вчителів іноземних мов до активної професійної мобільності відповідно до вимог інноваційного сучасного освітнього простору. Перспективи дослідження вбачаються у подальшому вдосконаленні та впровадженні дисципліни «Мобільність як шлях до успіху» у вищих навчальних закладах з філологічною спрямованістю

Ключові слова: мотивація, розвиток особистості, педагогічна діяльність, професійна мобільність, освітній процес

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Methodological Foundations of the Development of Professionally-Oriented Sociocultural Competence of a Foreign Language Teacher Using the Newspaper Material

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Abstract. The paper covers the features of development and improvement of sociocultural knowledge, skills and abilities of future foreign language teachers in the development of their professionally-oriented sociocultural competence. The relevance of the study is determined by the necessity to analyse the methods of using newspaper publications in the process of mastering sociocultural knowledge and forming sociocultural skills of philology students. The purpose of the study is to cover the features of applying the methodology for forming the sociocultural competence of a future English teacher through the use of newspaper material. In the process of study, the method of critical analysis of scientific literature was applied; the method of studying and generalising the experience of teachers; the method of theoretical analysis and synthesis in identifying the linguistic and stylistic features of English-language newspaper texts, in the process of analysing the principles and criteria for selecting newspaper articles, as well as to characterise the types of reading according to the communicative goals and stages of working with the text; the method of systematisation and generalisation in the study of research results. It was identified that the involvement of elements of the language culture of the people whose language is being studied in the content of learning is facilitated by Mass Communication Media, in particular newspapers. It was reasoned that newspaper articles provide the development of foreign language communicative competence, enriching the student's vocabulary, improving his skills and abilities in reading and speaking. It was proved that the tasks compiled based on newspaper material contribute to the creation of an authentic sociocultural space, develop students' ability to analyse patterns of speech behaviour in their native and foreign languages, improve their communicative skills and language competence, deepen background knowledge, and increase motivation to learn. The scientific novelty of the results lies in the detailed description of the requirements for exercises of the sociocultural direction, and their practical significance lies in the possibility of applying the results of the study in teaching a foreign language in the higher educational institutions

Keywords: newspaper article, sociocultural knowledge, skills and abilities, philology student, competency-based approach

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INTRODUCTION

The competency-based approach to learning a foreign language contributes to better results and involvement of the student in the process as a subject of learning [1-3]. This approach involves the use of innovative technologies, training in cooperation, and the use of knowledge from various branches of science. According to the recommendations of the European Commission on the main eight personal competencies necessary for lifelong improvement, cultural (or cross-cultural, sociocultural) competence occupies a key place [4].

Sociocultural competence covers knowledge (ideas, concepts, facts), skills (the ability to apply the acquired knowledge in practice), and attitudes (the interpretation or reaction of a person to certain circumstances, people, or ideas). For example, the necessary sociocultural knowledge when learning a foreign language includes knowledge about the culture, customs, and traditions of the people whose language is being studied, understanding the similarities and differences with the culture of their own people. Sociocultural skills include the skills of independent interpretation and expression of ideas in a foreign language, the ability to realise the abilities for personal and public good. A positive attitude to a foreign language, respect for cultural characteristics, openness to new ideas and a desire to cooperate, to conduct an intercultural dialogue indicates a proper sociocultural awareness of the individual. This competence is being formed and developed due to the different environment in which a person can be situated: family, school, higher educational institution, work, and so on.

As the analysis of scientific literature has shown, sociocultural competence as a component of foreign language competence has been the subject of research by many Ukrainian and foreign scientists. The theoretical foundations, content, and structure of sociocultural competence are covered in the scientific studies by S. Shekhavtsova [5], L. Hitsenko [6], L. Elphiston [7] et al. When the elements of the language culture of the people whose language is being studied are involved in the content of education, the problem of matching of the language environment arises. The importance of using authentic materials as the main source of successful foreign language acquisition is proved by the studies of I. Kolomyichuk [8], I. Zakiryanova [9], M. Bayram [10]. In some studies, attention is focused, in particular, on the effectiveness of mastering the foreign-language cultural component through the media and e-learning [11-13]. These studies prove that didactic material taken from original sources performs a double function: it serves as a source of sociocultural information about foreign-speaking countries and acts as a means of developing communicative skills and language competence. In the research of M. Maksimets [14], A. Nipadimka [15], the features of the development of foreign-language speaking skills and abilities in students of linguistic and non-linguistic specialisations are described. Scientists advise overcoming the problem of authenticity of the language environment by using original materials in the classroom: audio texts, video materials, works of art, TV programmes, podcasts,

video blogs, movies, etc. Foreign-language newspaper articles stand out from this list because they have a number of advantages: accessibility, relevance of the information provided, information richness, contain country specific and sociocultural value, provide the development of basic language knowledge of students (lexical, grammatical, orthographical), improve reading and speaking skills (when discussing what they read, formulating arguments and expressing their own opinion), expand background knowledge about the modern political, socio-economic and cultural life of the people whose language is being studied. Thus, educators I. Isaeva and N. Sabanska investigated the possibility of using newspaper material for the development of foreign-language communicative and sociocultural competence of future frontier guards [16]; L. Kunitsia, G. Cherednichenko and L. Shapran focused on the methodology of working with periodicals in non-linguistic higher educational institution [17]. However, the methods of organising and composing exercises for the development of sociocultural competence based on reading newspapers and methodological techniques for their use in classes with future foreign language teachers were not the subject of a separate scientific review.

The purpose of the study was to cover the features of applying the methodology for developing the sociocultural competence of a future English teacher through the use of newspaper material. The achievement of a set purpose involves solving the following tasks:

- 1) to describe the linguistic and stylistic features of newspaper texts and their selection parameters;
- 2) to clarify the requirements for exercises for the development of sociocultural competence of philology students based on newspaper texts;
- 3) to specify ways to organise educational newspaper material according to the communicative goals of reading.

METHODOLOGY

The research methodology is outlined by the tasks and material of the study; therefore, it has a complex nature. In the course of the study, a number of methods of scientific and pedagogical research were used. Among them:

1. Method of critical analysis of Ukrainian and foreign methodological, pedagogical, and linguistic literature on the subject matter. It is applied in the analysis of the advantages of the competency-based approach as one that encourages an individual to self-development throughout life and to improve his sociocultural awareness, skills, and abilities. For this purpose, the recommendations of the European Commission on the main eight competencies of the individual, foreign language curricula for general education institutions and specialised schools with advanced study of foreign languages (grades 10-11), scientific studies that highlight the advantages of a competency-based approach at different levels of education in Ukraine – from primary to professional higher education. In addition, the method of critical analysis helped to determine the place of sociocultural competence in the structure of foreign lan-

guage communicative competence in the training of a future foreign language teacher in the higher educational institutions. This method is also used to formulate the conclusions of this study.

2. The method of theoretical analysis and synthesis helped to find out the linguistic and stylistic features of newspaper texts as an effective and relevant source of cultural, linguistic, and sociocultural information. The texts of the English-language newspapers *The Times*, *The Guardian*, *The Washington Post*, *The Independent*, and *The Daily Telegraph* for 2019-2020 were used as illustrative material. Using this method, the paper provides a detailed description of the principles and criteria for selecting a journalistic text, as well as the topics of sociocultural material for classes with philology students.

3. The method of induction and deduction contributed to a detailed description of the types of reading according to communicative goals, as well as helped to determine the essence and sequence of stages of working with the text.

4. The method of studying and summarising the experience of teachers of Ivan Franko Drohobych State Pedagogical University allowed clarifying the methodology for organising work with the newspaper in a foreign language lesson in the higher educational institution.

5. The classification method made it possible to logically divide reading types into groups based on common characteristics.

6. The method of systematisation and generalisation is used to summarise the results of the study.

RESULTS AND DISCUSSION

Newspaper style is a special subtype of journalistic style with its own lexical, semantic, and stylistic features, with characteristic expressive, informative, and manipulative functions. An analysis of the texts of broadsheet English-language newspapers *The Times*, *The Guardian*, *The Washington Post*, *The Independent*, and *The Daily Telegraph* for 2019-2020 has shown that English newspaper style is a system of interrelated lexical, phraseological, and grammatical means that form a separate linguistic unit – text. It was found that information is provided through short news, reports, informational articles, as well as articles on various topics. A functional approach to the analysis of newspaper material has confirmed that the communicative aspect of speech is used to communicate or transmit information, in a journalistic article – an impressive aspect, in a report – expressive. The language of the newspaper style is dynamic, it is characterised by a combination of norms of oral and written speech.

First of all, attention was paid to the linguistic and stylistic characteristics of the title text. It was established that the headline of an English-language newspaper can report a fact: *Google builds giant cable from Cornwall to New York* (*The Times*), *First Trump-Biden debate shifts to Cleveland as Notre Dame backs out* (*The Washington Post*); to interest or attract the reader's attention with meaningful content for an intriguing or manipulative purpose: *Meet the doctor who says we have been showering wrong* (*The Guardian*),

Junk food isn't the only enemy, it's products pretending to be healthy (*The Independent*). It was found that when writing headings, articles and linking verbs are often omitted: *Second wave has started in Europe* (*The Times*); *Almost 3 billion animals affected by Australian bushfires* (*The Guardian*); *End of UK-Spain air bridge as much about politics as hard data* (*The Guardian*); *US sends more planes to keep watch in China* (*The Times*); nominative sentences are used: *Politics at the point of a gun; The extraordinary campaign to unseat Belarusian 'dictator'*; *10 ways to improve your health and fitness* (*The Times*); non-personal verb forms are used: *Extending furlough scheme would save 1.2m jobs* (*The Independent*); *Sending animals to war zones* (*The Guardian*); interrogative sentences are used: *Is this the second wave?* (*The Times*); *Who do you think Joe Biden should choose for VP?* (*The Washington Post*); word-play, or pun is used: *Police were found drunk in the street* (this can be interpreted in two ways: a police officer was found drunk or the police found a drunk on the street); a pile of nouns in the title is used: *Prime Minister's traffic headache or Teenage pregnancy increase*; present simple or infinitive instead of perfect or continuous tense is used: *Lebanon justice minister resigns after port blast* (instead of "has resigned") or *President to visit Hiroshima* (instead of "is going to visit").

To intrigue the reader, most articles contain a question that the author gives a reasoned answer to: *Will the fact masks are now obligatory in shops in England finally – please God – mark the end of the mask culture wars? Will this spark a political and public commitment to sane and effective public health policies? Well, yes and no. On the one hand, it's a relief that the government has finally listened to what the World Health Organization has been saying in increasingly desperate tones since early spring. On the other, complementary goggles seem to be required to make your way through this murky mire of regulation, social codes and libertarian posturing* (*The Guardian*). It was found that the lexical content of articles is emotional, mostly covering exciting or negative events: *British academic moved to notorious desert prison in Iran* (*The Times*), *'No masks allowed' sign removed from seaside takeaway* (*The Independent*).

In newspaper articles, the presence of socio-political vocabulary is recorded: *The Tories can't put off a new property tax for ever* (*The Times*); *Antics of Trump ambassadors highlight crisis in US diplomacy* (*The Guardian*); *US Republicans pandemic recovery plan could cut unemployment payments* (*The Independent*); terminology, in particular medical terminology: *three-parent embryos, oocyte [egg] nucleus transfer, super-spreader*. In addition, the analysed printed texts often include: idioms: *He injected jazz, a few bad apples spoil the bunch, beyond the pale*; neologisms: *gymgerly, Trumpism, glocalization (global + local)*, abbreviations *BAME* (black, Asian and minority ethnic), *BLM* (Black Lives Matter) *FSA* (Food Standards Agency), *IPCC* (Intergovernmental Panel on Climate Change), *WWF* (World Wide Fund for Nature); clichés: *vital issue, key speakers, core issues, pillar of society, blame game, banana republics, escalation of war, officials say*; frequent use of proper names,

toponyms, names of organisations, dates, and numerals. In addition, newspaper texts are rich in syntactic means, for example, oppositeness, parallelisms, repetitions: *Good teachers got rewarded while bad teachers got the boot* (The Times), *Populists on both left and right claim to be fighting for 'the people'* (The Independent).

As is evident, the English newspaper style is complex and multifaceted. It is the main means of reflecting changes in society by means of language, and therefore this style is rich in linguistic innovations, heterogeneity of syntactic and stylistic techniques. Newspaper style is an inexhaustible source of linguistic and foreign studies material, an intermediary in the development of a general picture of the world and, of course, a means to properly master English language. To effectively determine the direction and features of the methodology for applying English-language newspaper texts in the classes in higher educational institutions, it is necessary to clarify the principles and criteria for their selection.

As the analysis of scientific and methodological literature on the topic has shown, in the process of analysing and organising newspaper material, methodologists [8; 16; 17] advise adhering to the following principles:

1) to use *authentic material*, which was created to achieve a specific social purpose (to attract attention, arouse admiration or indignation). Such newspaper excerpts help to understand the current circumstances, the political, economic, or cultural picture of an individual language community;

2) newspaper texts must carry a certain amount of *sociocultural subtext* in order to expand the ideological potential of philology students;

3) it is advisable to follow a *thematic integrity*, namely, to select materials within the topics provided for in the work programme of the educational discipline;

4) in order to encourage increased speech activity, *the principle of communicative skills* provides understanding of speech material, development of logical presentation of thoughts, forms aesthetic taste.

The principles outlined above have an impact on the nature of exercises, methods and techniques of teaching using newspaper texts. They determine the use of certain criteria – selection rules based on certain qualitative and quantitative characteristics, namely: *thematic, informative content of the text, suitability of the teaching content, prospects for studying, readability, country specific and sociocultural value*. Thus, the teacher should organise the lexical material in accordance with the subject content (namely, take into account a certain conversational topic being studied in order to ensure complexity and cyclicity), take into account the informative content, logic, and/or emotionality of the abstract/article. Therefore, to ensure the formation and development of sociocultural competence, it is worth using such sociocultural newspaper material:

- review of sports news; interviews with athletes, chefs; advertising of health centres, sports complexes, medical products; announcements about mass sports events; recipes for cooking national cuisine;

- political reviews, materials on socio-political topics; interviews with famous people, on-the-spot news reporting;

announcements about performances, concerts, festivals; invitations to an art gallery and museum, reviews of films, programmes for sports events, guided tours, and entertainment during the summer holidays; advertising of hotels, hostels, hairdressers; vouchers (invitation discounts) to restaurants, cafes, bars;

- articles about the education system and school problems; advertising of training centres, foreign language courses; ads for employment.

As the study and generalisation of the positive work experience of teachers of Ivan Franko Drohobych State Pedagogical University has shown, it is advisable to choose the following forms of working with a newspaper on a foreign language lesson:

- front-collective (all students take part in solving tasks; the teacher directs their cognitive activity);

- group (solving tasks in small groups of 3-5 students with different academic performance);

- individual (independent performance of a separate task by a student offline or online).

It was established that the communicative goals of reading may differ, so the types of reading and their purpose are also different. Scientists distinguish three types of educational reading: skimming, scanning (selective), reading for detail (complete) [18]. For example, the purpose of skim reading is to understand 75% of basic information at a reading speed of about 180-190 words per minute. To develop introductory reading skills, the teacher should use large texts that are not difficult to understand. To achieve a proper result, the teacher suggests identifying the topic or main idea of the message; guessing the content of the message by reading the title; focusing on the main facts or problems; agreeing or challenging the proposed statements; choosing the image that best illustrates the above; briefly transmitting the content of the passage; expressing your opinion on the problem mentioned in the text, etc. Here are the examples of the tasks for developing skills in understanding basic information:

- *Read the headline and guess what the article is about.*

- *Read the article quickly to find out what it is about.*

Choose the best headline/summary for the text.

- *Find the following words in the article, and then write a definition for them in English.*

- *Correct the false statements.*

- *Choose from a number of pictures those that illustrate the article.*

- *Choose one of the statements below that you think corresponds the article the best.*

- *Briefly convey the main content of the article.*

- *What do you think of the problem mentioned in the article?*

Scanning aims to quickly find specific information by viewing a range of ads, programmes, recipes, and so on. The degree of understanding of the text is 40-50%, and the reading speed is 400-500 words per minute. In the tasks for the development of skills in finding specific information, it is suggested combining words into phrases, finding convincing arguments for or against a certain behaviour/action/idea, summarising in one sentence what is said

in each of the paragraphs of the article, making a plan of the article and retelling it, using this plan, expressing an opinion about what a student has read:

- Read the text below. Match choices A-F to 1-6.
- Which of the advertisements is about...?
- Which of the arguments below are for and which are against (social distancing)?
- Read paragraphs 1-5 and summarize each one in a single sentence.
- Make up a plan on the article.
- Tell your group mates about your text using the notes.
- Retell the article expressing your opinion on the problem.

Reading for detail, or complete reading is a deep, detailed understanding of a text followed by one's own interpretation. It helps to develop the ability to independently cope with language or content difficulties. Reading speed of 50-60 words per minute with the full understanding of the text. Author columns and articles of an informative nature can serve as newspaper material. Examples of communication tasks: write out the most significant information from the abstract, answer the questions, translate the article into Ukrainian, comment on the problems highlighted, retell the information to others, compare the information with one's experience. Thoughtful reading tasks might look as follows:

1. Copy out the most important information from the text.
2. Answer the questions on the text.
3. Make the written translation of the article in Ukrainian.
4. Read the text again. Discuss which of the ideas do you think is the best/worst?

Regardless of the type of reading, work with the newspaper text is being carried out according to the following stages [19]:

1. At the preparatory stage, the teacher analyses the newspaper material in accordance with the principles and selection criteria.
2. During of pre-text work in the classroom, the teacher:
 - activates background sociocultural knowledge (about national culture, rules of behaviour, mentality, history), as well as knowledge from students' own experience. To create an appropriate linguistic/situational atmosphere, a number of pedagogical methods are used, including a "memory card": students select words or phrases associated with the keyword located in the centre of the blackboard. The "memory card" develops critical thinking, teaches to distinguish the main point from the secondary, as well as to think independently; the "brainstorming" method helps remembering information related to the topic of discussion; the discussion method helps formulating and expressing one's own arguments in support of one of the two contradictory ideas;
 - helps to overcome lexical and grammatical difficulties before reading the text. Unfamiliar words are interpreted (if possible, in a non-complicated way), proper or geographical names are worked out, and the political/social realities of the country whose language is being studied are explained. When working with overcoming difficulties, methodologists recommend selecting texts with a certain

amount of new vocabulary (approximately 6%) to promote the development of speech guesswork;

- formulate a pre-text communication task in the form of a question/several questions. The purpose is to focus on finding and perceiving the necessary sociocultural information. Students search for answers to questions by reading the text. Examples of pre-text tasks: divide the article into three semantic parts (introduction, main, and final part); arrange the sentences in a logical sequence; select keywords; formulate the topic of the article; guess from the context what is the meaning of these words in this passage.

3. Actually reading and understanding the text. The amount of time varies depending on the complexity of the text.

4. Post-text stage. Its purpose is to control reading comprehension and develop the ability to formulate value judgments. The possible tasks include: answer questions; describe the drawing to the text; express your opinion on the statement; name the facts from this text that were unexpected/new/useful for you and why? In addition, this includes such cognitive-receptive tasks as: in the first paragraph, find a sentence that contains main information; name the sentence/paragraph that talks about; find facts that confirm/deny; name the issues that were raised in the text. Full understanding of the text content and training of vocabulary use occurs at the level of a phrase/collocation. Performing exercises that include selection, regrouping, analysis or synthesis, and searching for arguments help students to develop the ability to analyse the language and stylistic features of a newspaper text.

5. Stage of communication practice. Its goal is the independent application of linguistic material in all types of speech activity, both receptive (reading and listening) and productive (speaking and writing). An effective method at this stage is comparative analysis, when after reading a text about the realities of someone else's culture, students in groups or individually write a similar text, comparing common and distinctive features with the phenomena of their native culture. Another method – the method of modelling educational communicative situations is based on role-playing games, creating projects, portfolios, and so on. For example, to discuss the issues covered in the article, the teacher can suggest an interactive role-playing game "press-conference". One group of students formulates questions about the problems described in the article, while others cover them in their short speeches. This form of work develops the skills to correctly select words and phrases according to the situation, communicate, applying the acquired knowledge. In order to creatively apply the previously worked-out information in a new situation, the teacher asks discussion questions, motivating students to solve a certain communicative problem and causing a certain emotional reaction.

6. The final stage. Its purpose is to prepare for the retelling of what students have read by drawing up a plan for their own story or writing out reference words, phrases, and collocations from the text. The next step is to retell the text and express their own point of view regarding the events, facts, and problems described in the newspaper material.

CONCLUSIONS

Thus, newspapers as a source of authentic sociocultural material contribute to the development of professionally-oriented sociocultural competence of a foreign language teacher. Firstly, they help to solidify vocabulary or work out grammar in accordance with the purpose of the lesson, improving all speech competencies. Secondly, they update the teacher's background knowledge and experience in order to expand his cultural and/or national awareness of the country whose language he is teaching. It has been proved that with the systematic use of newspapers in foreign language classes, sociocultural knowledge, skills and abilities, and foreign language communicative competence in general are formed and developed.

To cover the features of applying the methodology for developing the sociocultural competence of a future English teacher by using newspaper material, the study describes the linguistic and stylistic features of newspaper texts. It has been found that the newspaper style of English-language newspapers has its own lexical, semantic, and

stylistic features. The study describes the parameters of newspaper material selection in accordance with the purposes of a foreign language lesson in the higher educational institution. Among them are criteria for thematic content, informative content of the text, suitability of the teaching content, prospects for studying, readability, country specific studies, and sociocultural value. The requirements for exercises based on newspaper texts are specified in accordance with the communicative goals of reading, such as developing skimming, scanning, and detail reading skills. Accordingly, the speed of reading and the degree of reading comprehension were clarified. The requirements for the stages (preparatory, pre-text, reading stage, post-text, communication practice, and final stage) of working with sociocultural material selected from the newspaper are detailed. The prospects for further research are the composition of a system of exercises aimed at the formation and development of sociocultural competence of students of philological specialisations of pedagogical universities.

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Методичні основи формування професійно-орієнтованої соціокультурної компетентності вчителя іноземної мови шляхом використання газетного матеріалу

Анотація. У статті розглянуто особливості розвитку та вдосконалення соціокультурних знань, умінь і навичок майбутніх учителів іноземної мови за формування їхньої професійно-орієнтованої соціокультурної компетентності. Актуальність дослідження детермінована необхідністю аналізу методів використання газетних публікацій у процесі засвоєння соціокультурних знань та формування соціокультурних умінь і навичок студентів-філологів. Мета статті – розкрити особливості застосування методики формування соціокультурної компетентності майбутнього вчителя англійської мови шляхом використання газетного матеріалу. У процесі роботи застосовано метод критичного аналізу наукової літератури; метод вивчення й узагальнення досвіду викладачів; метод теоретичного аналізу й синтезу в з'ясуванні лінгвостилістичних особливостей англійських газетних текстів, у процесі аналізу принципів і критеріїв відбору газетних статей, а також для характеристики видів читання згідно з комунікативними цілями та етапами роботи з текстом; метод систематизації й узагальнення у вивченні результатів дослідження. З'ясовано, що залученню в зміст навчання елементів мовної культури народу, мова якого вивчається, сприяють засоби масової комунікації, зокрема газети. Обґрунтовано, що газетні статті забезпечують розвиток іншомовної комунікативної компетентності, збагачуючи словниковий запас студента, удосконалюючи його вміння, навички й здібності в читанні та говорінні. Доведено, що укладені на основі газетного матеріалу завдання сприяють створенню автентичного соціокультурного простору, розвивають у студентів уміння аналізувати зразки мовної поведінки в рідній та іноземній мовах, покращують їхні комунікативні навички та мовну компетентність, поглиблюють фонові знання та підвищують мотивацію до навчання. Наукова новизна результатів полягає в детальній характеристиці вимог щодо вправ соціокультурного спрямування, а їхня практична значущість – у можливості застосування результатів дослідження при викладанні іноземної мови у ЗВО.

Ключові слова: газетна стаття, соціокультурні знання, вміння й навички, студент-філолог, компетентнісний підхід

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Psycholinguistic Study of the Speech of Older Preschool Children: Specific Features of Understanding the Figurative Meaning of Phrases and their Use in Spontaneous Speech

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Abstract. The acquisition of native language phraseology is important for the speech and mental development of preschool children, because with the help of phraseology children can expressively reproduce a variety of social events in speech, impartially characterise people, their actions and deeds. The purpose of the study was to investigate psycholinguistic features of children's development of operations of understanding figurative meaning of phraseological expressions and their verbalisation in speech. To this end, the authors used methods of assessing the understanding of figurative meaning of proverbs and metaphors, direct interpretation of a word, choosing one variant of meaning from several paraphrases, interviewing children, recording their statements on a voice recorder, and talking to children. The analysis of children's speech was carried out according to the criteria and corresponding indicators: semantic (lexical, metaphorical, conceptual), pragmatic (active use of phrases, correct reproduction, appropriateness of actualisation), expressive-stylistic (evaluative, emotional, figurative speech). Four levels of children's operations of understanding figurative meaning of phraseological expressions and their use in speech were identified: high, sufficient, average, low, each of which correlated with certain psychological and psycholinguistic characteristics. It was found that children acquire phraseology spontaneously, under the influence of the speech of others, and selectively. It has been revealed that preschool children understand the meaning of phraseological units better than they use them in oral speech; the use of phraseological units in spontaneous speech is a more complex speech operation for children than the operation of decoding the figurative meaning of a phraseological unit. However, both the operations of understanding the figurative meaning of phraseological units and the operations of verbalising phraseological units in spontaneous speech require further development. The practical value of the research lies in the development of a diagnostic technique for studying the operations of understanding figurative meaning of phraseological expressions and their use in spontaneous speech in the zone of a child's speech activity and thinking development

Keywords: understanding of figurative meaning of phraseological units, explication of phraseological units, speech learning, phraseological units

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INTRODUCTION

At the present stage of the development of psychological science, issues related to the study of the peculiarities of the functioning of phraseological units in the utterances of preschool children have become relevant. Researchers of children's speech (O.M. Gvozdev, L.O. Kalmykova, I.V. Mysan, V.K. Kharchenko, S.N. Zeitlin, etc.) believe

that phraseological units not only normalise children's language, but also improve speech culture and make the expressions of pre-schoolers more eloquent, and above all involve children in the origins of national culture, folk art, folk wisdom, presented in accurate, witty and colourful means of expression of the native language – phraseological

expressions. The importance of phraseology for speech and mental development of children is that with their help it is possible to expressively reproduce various social events, to neutrally characterise people, their actions and deeds in speech.

Analysis of scientific research on the problem of children's knowledge of phraseological structures showed that this problem is the subject of attention of psychologists around the world. Thus, children's understanding of the figurative meaning of phraseologisms have been studied by Eastern European scholars [4-6]. Sensitivity to the emotional colour of speech is described in detail by O. M. Gvozdev [1]. The scientist is convinced that a child is able to express emotions in speech, using means of emotional expression such as phraseologisms, a variety of affectionate words, voice intonations, etc. N. Yeliseyeva, E. Guts, and A. Marin [7] studied the peculiarities of understanding phraseological expressions in the age period from middle school age (4 years) to middle school age (12 years) by Russian-speaking children who develop normally. Scientists have found that such a cognitive ability as the understanding of phraseologisms, slowly develops in early childhood. By the age of 6, children mostly interpreted phraseology in the literal sense. By age 7, the ability to correctly understand the meaning of phraseology increased until it reached a plateau at age 12.

In Western European and American psychological science, this issue has been studied on the basis of various national languages by many scholars [8-10]. Researchers have identified factors that affect the ease of understanding of phraseologisms, among which are familiarity with phraseologisms [9-11]; semantic analysis of words that form phraseologisms [12-14]; the context in which the phraseologism is used [15]. The research of scientists [16-18] established the important role of working memory in the perception and understanding of phraseological expressions of 6-year-old children.

The research on the selected issue was organised from the standpoint of psycholinguistic science. Its purpose is to study the state and psycholinguistic features of the development of operations of understanding the figurative meaning of phraseological units and their use in spontaneous speech in children of older preschool age. The reason for this study was that so far, the vast majority of scientific research on this subject matter has been performed in the paradigm of cognitive psychology. According to the authors, the issue of psycholinguistics of children's phraseology (perception and understanding of the meaning of phraseology and their verbalisation in spontaneous speech) requires in-depth study. The choice of the age category of children – older preschool age – is due to the fact that it is at this age that pre-schoolers actively develop internal speech, which plays an extremely important and special role in such speech activities as listening (verbal perception and understanding of speech) and speaking [19]. As shown in the study of T.V. Akhutina [20], internal speech takes an active part both in listening (where a transformation of objective linguistic meanings into semantic structures (situational meanings) happens) and in speech (transformation of previously formed semantic structures into objective linguistic meanings takes

place). In the senior preschool age, children begin to comprehend figurative meanings of words, they intensively develop verbal-logical thinking, perception, imagination, memory, which are directly related to speech; pre-schoolers learn to verbally explain thoughts, feelings, intentions, desires, beliefs, judgments in figurative, colourful, emotionally expressive speech. Children of this age are able to adequately perceive and express emotionality and evaluation, which are important components of the structure of phraseological meaning. In particular, they are able to evaluate everything around them, expressing their evaluation through emotional means of speech; they begin to dynamically actualise the evaluative and explanatory functions of the word [21]. At this age, the parameters of expressive features, differentiation, and generalisation of expression are improved. Verbal functions play a significant role in the mechanisms of the development of recognition and understanding the emotions [22]; children understand words and stable phrases that express emotions, are able to recognise emotional states, explained by means of words and expressions [23]. In older pre-schoolers, according to O.M. Gvozdev [1], V.K. Kharchenko [3], the interest in new colourful expressions – phraseologisms – significantly increases; they listen to unusual phrases, ask adults what they mean, try to use them in their own speech.

The object of this study – the process of speech development of older preschool children. *The subject of the study* – the state and psycholinguistic features of the development of operations of understanding the figurative meaning of phraseological units and their explication in oral spontaneous speech in children. *The purpose of this study* was to analyse the psycholinguistic features of the development in children of operations of understanding the figurative meaning of phraseological units and their verbalisation in the spontaneous speech of children at the preschool stage of ontogenesis (5-5; 5 years).

MATERIALS AND METHODS

The empirical study is based on scientific concepts and terms, which in their unity formed the theoretical basis of diagnostic methodology. Among them are:

- phraseologisms – stable combinations of two or more words, which are reproduced as vocal verbal formulas with semantic integrity in the process of speech, convenient for the conversational style of everyday communication and speech [24];

- phraseologisms, as a scientific category, should be studied not by “elements”, but by “units”, i.e., as linguistic, psycholinguistic, and psychological units. As *linguistic units*, phraseologisms are correlated with language, language standard, i.e., with the language system and language norm objectively present in people's “social memory”; these are codified language units. As *psycholinguistic units*, phraseological units are operative speech units correlated with speech activity: units of individual listening (verbal perception and understanding of the meaning of phraseological units) and individual speaking (use of phraseological units in spontaneous speech). As *psychological units* – phraseologisms are a reflection in the child's mind of the structure of

language ability – psychophysiological speech organisation, which provides the implementation of various types of speech activities – listening (perception and understanding of the meaning of phraseologisms) and speech (use of phraseologisms in spontaneous speech) [25];

- analysis of the processes of perception and understanding of the meaning of phraseologisms and their use in oral speech should be carried out by operations, taking into account the peculiarities of speech operation as the smallest unit that contains all the properties of the whole – spontaneity, unconsciousness, involuntariness [23];

- *figurative meaning of phraseologism* – a secondary lexical meaning that functions simultaneously with the direct (nominative, denotative), but in different styles. It arises on the basis of different types of associative connections and is connected with the main, leading meaning by relations of metonymic, metaphorical dependence, or certain associative features;

- *acquisition of the figurative meaning of phraseologisms* – the process of acquiring a secondary, derivative meaning of phraseologism as a result of the development of operations of perception and understanding of the meaning of phraseology, and operations of using phraseological compounds in a spontaneous speech to nominate an object or phenomenon that is not its usual or natural referent;

- *understanding the figurative meaning of phraseology* – thinking and speech operation of abstraction from the direct (primary) meaning of the phraseological expression and the separation of its figurative (secondary) meaning.

Based on these provisions, the criteria and indicators for identifying the state and levels of development of children's operations in understanding the meaning of phraseologisms and their use in spontaneous speech are identified.

1. **Semantic criterion** – provided an opportunity to identify the degree of acquisition of the semantics of phraseologisms (understanding the figurative meaning of phraseologisms). **Indicators:** *lexical* – the development of operations for understanding the semantics of direct (literal) meaning; *metaphorical* – the development of operations of understanding the phraseological (secondary) meaning; *conceptual* – the development of operations of understanding the concept of phraseologism.

2. **Pragmatic criterion** – to study the state of development of operations for using phraseologisms in spontaneous speech. **Indicators:** *activity* in the use of phraseologisms; *correct reproduction* of phraseologisms; *the relevance of the actualisation* of phraseology in a given communication situation.

3. **Expressive-stylistic criterion** – to study the modality of speech associated with the expressive features of the phraseologisms used. **Indicators:** *speech value*; *emotionality* of speech; *figurativeness* of speech.

According to the **semantic criterion**, the state of development of children's operations of understanding the figurative meaning of phraseologisms was studied. For this purpose, primarily *psycholinguistic methods* were used, in particular: a) the method of assessing the understanding of the figurative meaning of proverbs and metaphors [19]; b) the method of direct interpretation of the word [19];

c) the method of choosing one variant of meaning from several paraphrases [12]. Such methods as *interviewing*, *recording* their statements on a voice recorder, *conversations* with children were also used.

The use of the method of assessing the understanding of the figurative meaning of proverbs and metaphors, and the method of direct interpretation of the word made it possible to investigate not only the state of development of speech operations in children but also mental ones. If the child understands the figurative meaning of phraseologisms, then he has developed abstract thinking; if the child has difficulties and understands phraseologisms in the literal sense, he has dominant figurative thinking. The quality of the interpretation of phraseologisms was also assessed: attention was focused on whether children focus on the essential features of the content of phraseologisms (full explanation of the figurative meaning of phraseologism), or explanations are vague and unclear. In addition, the presence of direct (denotative, nominative) interpretation of the meaning of words that form a phraseologism was clarified.

The study of psycholinguistic features of children's understanding of the figurative meaning of phraseologisms was carried out individually with each child. The diagnostics were made in the form of a *game* "Help the Bear to unravel unusual expressions". The course of the game is as follows. The educator (psychologist) addressed the child: "Look, our Bear is crying. Do you know why? He likes to listen to stories, fairy tales. But when he listens to them, he hears many unusual expressions that he does not understand. And because Bear does not understand these unusual expressions, he cannot fully understand what they are talking about. Let us help the Bear and explain these unusual expressions. How do you understand the expression...?" *Incentive material:* like snow on the head; to chase two rabbits; thick as thieves; loosen the tongue; to stand gaping; to twiddle one's thumbs; like the fifth wheel to a cart; keep one's mouth shut; a drop in the ocean; to lead around by the nose.

The experiment also provided such a variant of the task, when the child had difficulty in decoding the meaning of phraseologism; the child could not decipher the figurative meaning of the phraseologism (or was silent at all, or explained the meaning of the phraseological expression on the basis of random associations). It was important to find out the reasons for these difficulties. For this purpose, the method of "choosing one interpretation from the presented variants of definitions" was used [12]. According to this method, children were offered 2-3 ready-made explanations of the meaning of phraseologism, from which they had to choose one that revealed the figurative meaning of phraseologism they heard.

For example, the phraseologism "like snow on the head" is correct in the following interpretation: it is about something that happened unexpectedly, suddenly. An additional option: in autumn the leaves fall from the trees like snow on the head; like snow on the head. The correct explanation of the phrase "Keep one's mouth shut" is "keep quiet, not a single word". Additional options: so that no one sees the tongue, it must be held by the teeth;

when you communicate with people you should not show your tongue, but keep it behind your teeth. What did this method make it possible to study? First, what are the difficulties for children: in understanding the figurative meaning of phraseologism, or in the verbal explication of understanding. Secondly, it was assumed that a child who does not understand the figurative meaning of phraseologism, that is, thinks specifically, will not be able to choose from the given meanings of the actual figurative, and will focus on secondary, is vague.

The results of the diagnostics were processed as follows: children's answers were evaluated on a four-point scale from 0 to 3 points (3 points – a child interprets the figurative meaning of the phraseologism correctly; 2 points – a child gives an adequate, close to the correct interpretation, description of the phraseologism; 1 point – explains the meaning of phraseologism incorrectly; 0 points – a child does not communicate). A maximum number of points – 30. The state of development of operations of understanding the meaning of phraseologisms (by semantic criterion): 26-30 points – fully developed; 17-25 points – partially developed; 8-16 points – minimally developed; 0-7 points – undeveloped.

According to the **pragmatic criterion**, the state of development of operations of explication of phraseological units in spontaneous speech in children was studied. For this purpose, the observational method was used on the speech of children in different life situations. In addition, they recorded whether children use phraseologisms when they are given a speech task, such as retelling a fairy tale or story, come up with a text story, text-description, and so on. The results of the diagnostics were processed as follows: children's speech was evaluated on a four-point scale from 0 to 3 points on indicators: a) *activity of use* (3 points – a child uses phraseologisms in speech actively and independently (without the requirements of a psychologist or educator); 2 points – a child uses phraseologisms in speech mostly at the request of the educator or in the process of retelling a fairy tale; 1 point – the child does not use phraseologisms in speech provided that educator had reminded to do so, but only in the process of retelling a fairy tale; 0 points – no phraseologisms in speech); b) *correctness of reproduction* (3 points – the child grammatically correctly reproduces phraseological units without changing the canonical form; 2 points – in reproduction of phraseological units the child sometimes assumes changes in their canonical form (but in the process of retelling a fairy tale phraseological units are reproduced correctly); 1 point – in the reproduction of phraseologisms a child tends to transpose and reduce; 0 points – a child does not use phraseologisms in speech, even in the case of retelling a fairy tale); c) *appropriateness of use* (3 points – a child appropriately (according to the life situation, communication situation) actualises phraseologisms in speech; 2 points – a child mostly actualises phraseologisms in speech, but sometimes in

spontaneous speech inappropriate use of phraseologisms is assumed; 1 – a child inappropriately uses phraseologisms in both stimulated and spontaneous speech; 0 points – a child does not use phraseology). A maximum number of points – 9. The state of development of operations of use of phraseological units in speech (according to the pragmatic criterion): 8-9 points – operations are fully developed; 5-7 points – partially developed operations; 2-4 points – minimally developed; 0-1 point – undeveloped.

According to the **expressive-stylistic criterion**, the operations of stylistic-expressive manifestation of children's speech were studied. For this purpose, the method of observation of spontaneous expressions of pre-schoolers was used. The results of the diagnostics were processed as follows: children's speech was evaluated on a four-point scale from 0 to 3 points on indicators: a) *evaluation* (3 points – the child actively uses phraseologisms in speech, can give either positive or disapproving characteristics of the subject, situations using 9-10 phrases ("a bear stepped on his ear", "a wolf in sheep's clothing", "sharp tongue", "sharp eye", "kind heart", "hare soul", "to act against one's conscience", "keep silent like a fish in water", "be at the tail end", "loosen the tongue"); 2 points – a child gives either a positive or disapproving description of the subject, using 5-8 phrases; 1 point – a child gives either a positive or disapproving description of the subject, using 2-4 phraseologisms; 0 points – a child either gives a positive or disapproving characterisation, using 1 phraseologism or not using at all); b) *emotionality* (3 points – the child actively uses 9-10 phraseologisms in speech to convey emotional states ("heart is soothed", "heart aches", "finger licking good", "with a sincere heart", "with a dear soul", "eager to", "hair is standing up", "in the seventh heaven", "to push one's buttons", "to keep one's chin up"); 2 points – the child uses 5-8 phraseologisms in speech to convey the emotional state, 2 points – the child uses 2-4 phraseologisms in speech to convey an emotional state, 1 point – the child uses 1 phraseologism in speech to convey an emotional state, or does not use phraseologisms in speech at all); c) *figurativeness* (3 points – the child actively uses 9-10 phraseologisms in speech with words-concepts (for example: "beautiful as a red viburnum", "fear like the plague", "strong as an oak", "bypass the tenth road", "like pears on willow", "burn as a steady flame", "grow like a willow by the water", "like fire", "happy as a bird", "at the call of the heart"); 2 points – the child uses 5-8 phrases in utterances; 1 point – the child uses 2-4 phrases in speech; 0 points – the child uses 1 phraseologism with words-concepts in speech, or does not use at all). Processing of diagnostic results: maximum number of points – 9. The state of development of operations of use of phraseology in speech (by expressive-stylistic criterion): 8-9 points – fully developed; 5-7 points – partially developed; 2-4 points – minimally developed; 0-1 point – undeveloped. The points that children receive according to three criteria (semantic, pragmatic, expressive and stylistic) are presented in Table 1.

Table 1. A table of points that children receive according to three criteria

No.	Criteria	Units of measurement	The state of development of operations of understanding the meaning of phraseologisms and their use in speech			
			Fully developed	Partially developed	Minimally developed	Undeveloped
P O I N T S						
1.	Semantic	Operations of understanding the meaning of phraseologisms	30-26	25-17	16-8	7-0
2.	Pragmatic	Operations of using phraseologisms in speech	9-8	7-5	4-2	1-0
3.	Expressive-stylistic	Operations of evaluation, emotionality, figurativeness of speech	9-8	7-5	4-2	1-0

The maximum number of points according to three criteria – 48

The state of development of operations of understanding the figurative meaning of phraseologisms:

41-48 – fully developed;

28-40 – partially developed;

19-27 – minimally developed;

0-18 – undeveloped

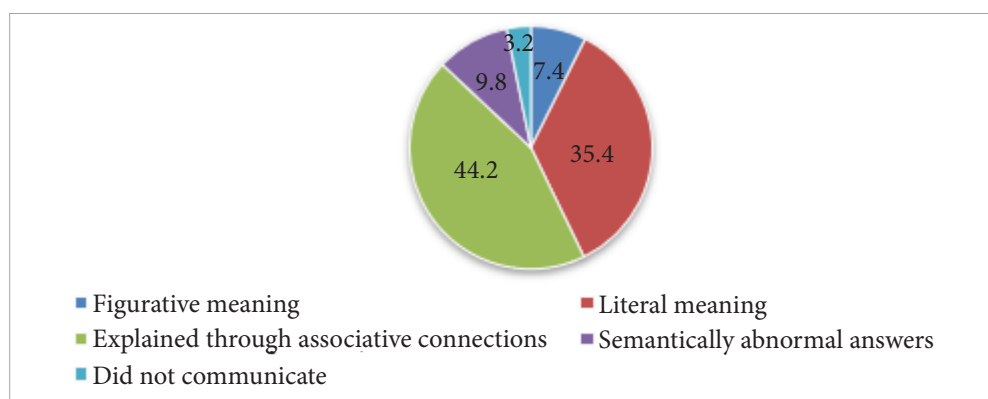
Thus, the total number of points was calculated according to three criteria, after which the results were summarised and presented in the speech profile of each child on the level of development of operations in understanding the figurative meaning of phraseologisms and their use in spontaneous speech.

The observational experiment involved 178 children of senior preschool age (5-5.5 years), who attend preschool education institutions of Kyivska, Khmelnytska, Khersonska, and Cherkaska Oblasts of Ukraine. To ensure internal and external validity, the participants of the experiment were randomly selected to create simple random samples. The use of such a sample is based on the assumption that each member of the population is equally likely to be included in the sample. Before the study, permission was obtained from

parents for their children to participate in the experiment. All parents, educators, psychologists were acquainted with the purpose of the study, its procedure, and programme.

RESULTS AND DISCUSSION

The analysis of the results of children's performance of tasks on the interpretation of the meaning of phraseological units according to the *semantic criterion* showed the following results: 7.4% of children explained the figurative meaning of phraseological units; 35.4% of pre-schoolers explained phraseology in the literal sense; 44.2% of respondents explained the meaning of phraseologisms through associative connections; 9.8% of pre-schoolers gave semantically abnormal answers; 3.2% of children did not communicate (Fig. 1).

**Figure 1.** The state of development of children's operations of understanding the direct and figurative meaning of phraseologisms

The experiment showed that 7.4% of children are able to explain the figurative meaning of phraseologisms. Although the children gave an incomplete description of phraseological conjunctions, it was close to the correct interpretation (children's statements are presented in

an authentic form, with the preservation of syntactic, grammatical, orthoepic, and intonation features of their speech). For example: "Loosen the tongue" («Говорити», «Це балакати»). "To stare at the skies" («Не слухати»). "Jack of all trades" («Вихователька може зробити все і

сонечко вирізати», «Він всіх лічить», «Майструє руками», «Він все будує все», «Він робить щось для усіх»).

The development of children's understanding of the figurative meaning of phraseologisms was indicated by the fact that they were able to decipher the secondary (figurative) meaning of this language unit, using examples from life experience. For example: "Like snow on one's head" («Це я не чекав щось, а воно случилось, як ішов раз по вулиці, а з криши сніг ба-бах і мені прямо на голову»). "Keep your mouth shut" («Як вихователька спитала мене, а я сховав язика за зубами, того що не хотів казати, хто скинув вазона з підвіконника, бо я не ябідка, і не хочу видавати друга»). The correct explanations of the secondary meaning of phraseologisms included such answers of children, in which they appropriately used examples from past life situations to reveal the meaning of phraseologisms. For example: "Thick as thieves" («Це ми так дружимо з Вальою, граємося, чергуємо разом»).

It was recorded that in the situation of the given variants of the meanings of phraseological units, the majority of pre-schoolers chose the figurative one faster and without

any special difficulties. Why did this happen? Because children no longer needed to independently programme thoughts and explain them in a speech in the process of explaining the figurative meaning of phraseologism. They already had ready speech samples. Thus, the number of children who chose the figurative meaning correctly (from the proposed variants of meanings) increased compared to the number of children who could explain the figurative meaning of phraseologisms without the proposed variants of meanings. Thus, 20.4% of children chose the correct variant (figurative meaning of phraseologism), 59.4% of children chose the direct meaning of phraseologism, 14.8% of pre-schoolers chose the associative variant of meanings, 4.1% of respondents chose the variant that revealed semantically abnormal meaning, 1.3% of children did not communicate (Fig. 2).

The ratio of the obtained results to the state of development of children's operations of understanding the figurative meaning of phraseologisms (without the proposed options) and in the situation of choosing the meaning of the given options is clearly shown in Figure 3.

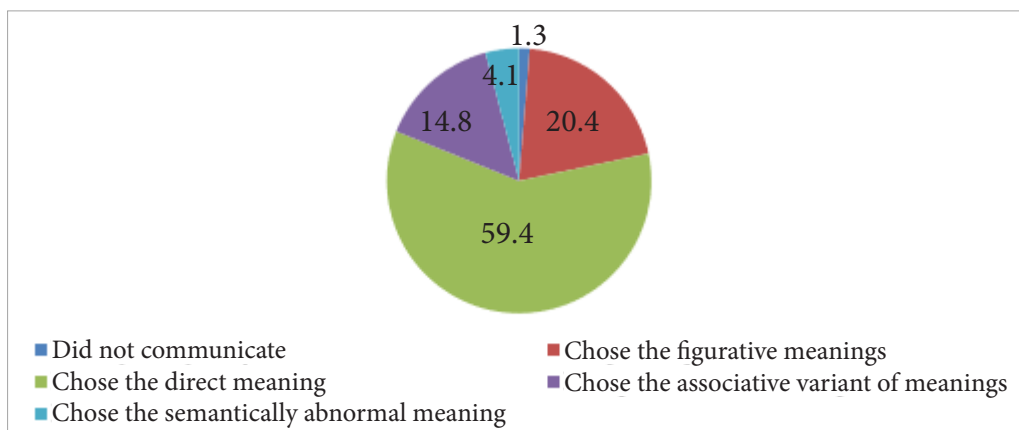


Figure 2. Children's choice of figurative meaning of phraseological units from the given variants of meanings

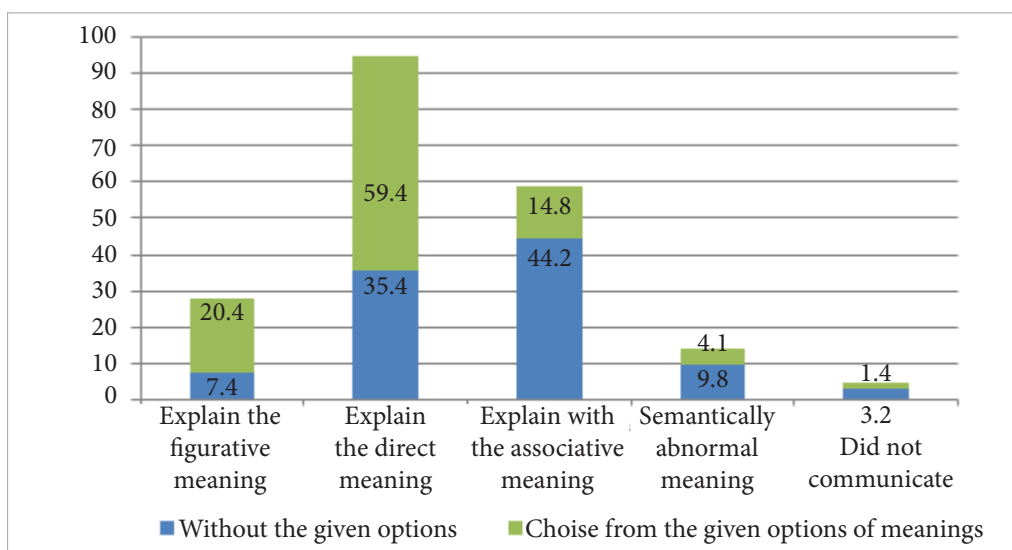


Figure 3. Children's understanding of the meaning of phraseologisms in situations without variants of meanings and with the given variants of meanings

Thus, the study showed that children have an intuitive language ability to feel the general meaning of phraseologisms. However, it is difficult for them to explain this meaning without additional stimulation (answer options). In a situation of additional stimulation, some

children are able to choose the correct option from the meanings – the figurative meaning of phraseologisms. Children with undeveloped operations of understanding the figurative meaning of phraseologisms gave explanations, which were classified (Table 2).

Table 2. Typology of mistakes made by children in the process of operationalising the meaning of phraseologisms

Ways of misinterpreting the meaning of phraseologisms		
Typology of mistakes	Incentive material	Misinterpretations
I. Replacing the figurative meaning of the phraseologism with a direct meaning		
Through the tautology with a violation of the structure of allegory	Як сніг на голову (like snow on one's head)	«Він падає на голову», «Сніг падає на голову»
	Водою не розлити (thick as thieves)	«Нести акуратно, щоб не розлити воду», «Вода не розливається із чашки»
	Тримати язика за зубами (to keep one's mouth shut)	«Треба тренуватися всім тримати язик за зубами»
	П'яте колесо до воза (like a fifth wheel to a cart)	«У воза є колеса»
By replacing the idiom with a lexical synonym with an inaccurate figura-tive meaning	Гнатися за двома зайцями (to chase two rabbits)	«Бігти»
	Водою не розлити (thick as thieves)	«Не хлюпатися у воді», «Кріпки»
By deriving the idiomatic meaning only from the denotative meanings of the individual words of which it consists, ignoring the context	Як кіт наплакав (a drop in the ocean)	«Кіт м'явкає», «Коти не плачуть», «Ціле море сліз»
	Ловити гав (to stand gaping)	«Собаку ловити», «Собака гавкає», «Собака ловить другу собаку», «Собака гавкає, а другий собака ловить гав»
II. Interpretation of the meaning of idioms through associative meanings		
By replacing the meaning of idioms with free phrases, words, and sentences with other semantic content	Ловити гав (to stand gaping)	«Бути неслухняним, бігати, а коли мама каже, не слухатися її», «Можна попитати включити телевизор і не сказати, будь ласка», «Байдикувати», «Нічого не робити», «Довго за комп'ютером сидіти, нічого не робити, не допомагати»
Through cause and effect	Як сніг на голову (like snow on one's head)	«Сніг на голову не можна, бо можна захворіти», «Бо він із криш упав і на голову»
	Як кіт наплакав (a drop in the ocean)	«Бо його собака укусила», «Бо його вдарив поганий хлопчик і він заплакав», «Котика хтось образив», «Больно йому»
	Гнатися за двома зайцями (to chase two rabbits)	«Бо того що треба їх зловити»
	Тримати язика за зубами (to keep one's mouth shut)	«Бо треба зуби почистити», «Бо можна прикусити його і буде больно», «Бо зимою він замерзне, коли ти його не заховаєш»
Because of the formulation of the conditions in which the statement is contained	Як сніг на голову (like snow on one's head)	«Якщо сніг падає на голову, то тоді болить голова»
Through the formulation of the goal	Водою не розлити (thick as thieves)	«Щоб напиться», «Щоб принести воду мамі»
	Гнатися за двома зайцями (to chase two rabbits)	«Щоб догнати їх і покормити морковкою»
	Тримати язика за зубами (to keep one's mouth shut)	«Щоб ніхто не бачив язика»

III. Semantically abnormal answers-interpretations

Through the use of an adverb that expresses (denotes) a sign of measure, degree	Розв'язати язика (to loosen the tongue)	«Нелегко», «Боязко ялось», «Дуже легко», «Бистро»
	Водити за носа (to lead around by the nose)	«Акуратно», «Красиво», «Боляче», «Круто»
	Ловити гав (to stand gaping)	«Важко», «Интересно», «Страшно», «Якось недуже весело», «Дуже весело», «Дружно і весело»
	Гнатися за двома зайцями (to chase two rabbits)	«Бистро», «Психольно ялось», «Довго»
Через висловлювання, побудовані на спробах простого відгадування змісту фразеологізмів	Водити за носа (to lead around by the nose)	«Схватити за носа і водити по коридору», «Врач дивиться»
	Ловити гав (to stand gaping)	«Не слухатися маму», «Звуки якісь», «Кидати щось», «Прогулювати», «Не робити цього»
	Бити байдики (to twiddle one's thumbs)	«У барабани бити палками», «Бити палкою по дереву»

According to the **pragmatic criterion**, the state of development of operations of phraseological units in spontaneous speech explication in children was studied. According to the results of the study, quantitative and qualitative data were obtained on the following indicators:

activity of using phraseologisms; correct reproduction of phraseologisms; the relevance of the actualisation of phraseologisms (Fig. 4, 5, 6). It was found out how children reproduce phraseologisms in speech.

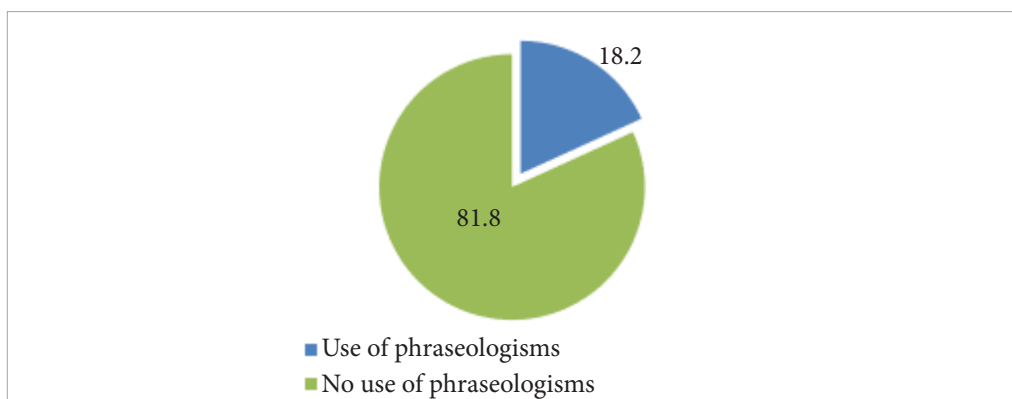


Figure 4. The activity of pre-schoolers' use of phraseologisms in spontaneous speech, %

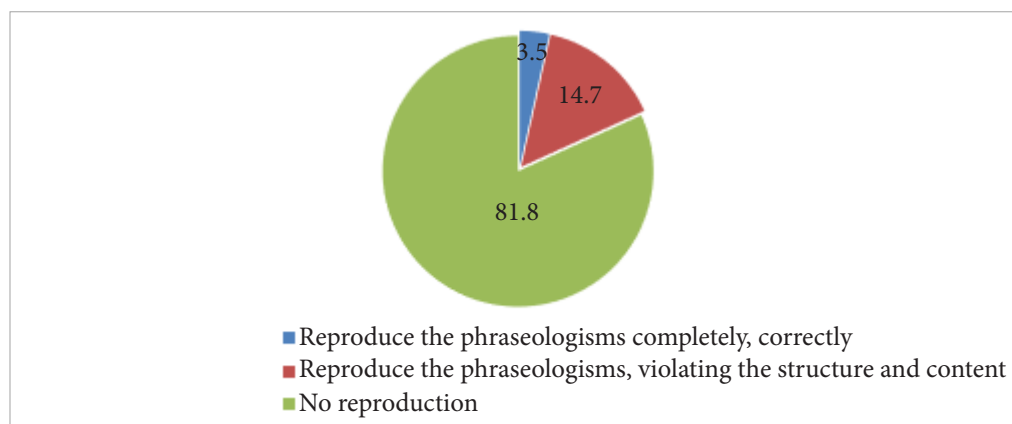


Figure 5. Correctness of reproduction of phraseological structures by children in spontaneous speech, %

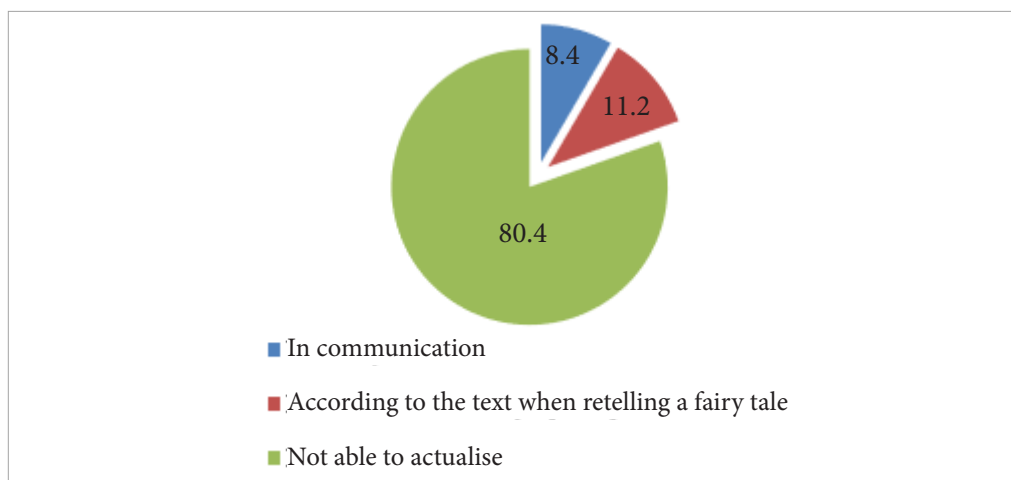


Figure 6. Relevance of children's actualisation of phraseological units in spontaneous speech, %

The results of the analysis of the obtained data on the indicator “*activity of the use of phraseologisms*” showed that 81.8% of children have undeveloped operations of explication of any phraseologisms in speech. 18.2% of children used familiar phraseologisms with a certain frequency in their monologues (Fig. 4). So, when the teacher's assistant was setting the table, there were children who said: «Оце дивлюся, що вже їсти насипають, так вже їсти схотілося, аж слинка вже котиться» (“*mouth is watering already*”)!» while waiting for dinner; when the children ate, Sasha L. repeatedly emphasised: «Сьогодні така вкусна каша, аж у мене лящить за вухами» (“*to wolf something down*”)!». In general, the most commonly used phrases that individual children used in speech in different situations were: “*Leave alone*”, “*To twiddle one's thumbs*”, “*To know something in one's sleep*”, “*The biter bit*”, “*Cat and dog*”, “*Keep your mouth shut*”.

Only 3.5% of children used phraseologisms correctly (according to the “*correctness of reproduction*” indicator). They reproduced phraseological expressions fully and accurately, without changing either their content or their form. That is, both in semantic and grammatical terms, phraseologisms remained unchanged (without transformations and reductions). 14.7% of children used phraseologisms in spontaneous expressions and at the request of the teacher, but modifying them in a way. For example: «З ним компоту не заколотити» – instead of «З ним каші не зварити» (“*He is hard to deal with*”), «Заховати язик у зубах» – instead of «Тримати язика за зубами» (“*To keep one's mouth shut*”), «Витирати носа» – instead of «Втерти носа» (“*be one up on somebody*”) etc. 81.8% of children were not able to correctly reproduce the phraseologisms. Pre-schoolers changed their content, for example: «Вийти мокрим із води» – instead of «Вийти сухим із води» (“*To get off scot free*”), «Відпустити гав» – instead of «Гав ловити» (“*To stand gaping*”), «Дивитися крізь очі» – instead of «Дивитися крізь пальці» (“*Close one's eyes to something*”) etc. The results of the analysis of children's speech on the indicator “*correctness of reproduction of phraseologisms*” are clearly presented in the figure (Fig. 5). According to the indicator “*appropriateness of actualisation of phraseological units*”, it was found that 8.4% of children

appropriately expressed phraseological units in both dialogue and monologue speech. 11.2% of children were able to accurately use phraseologisms when retelling a fairy tale (Fig. 6).

The study also revealed children who were not able to properly operationalise phraseologisms, because they did not understand the purpose of phraseologisms, did not understand in which situations you can use one or that another expression, such as: «Так добре наївся, що аж слинки потекли» (“*Mouth is watering already*”), «Давай з тобою будемо дружити, бо наші хати скраю і ми можемо ходити в садік разом» (“*Out of one's hair*”) etc. (Fig. 6). Thus, low activity of children's use of phraseologisms in speech was recorded. Only 3.5% of children reproduced phraseological expressions in utterances completely correctly, trying to use phraseological units accurately in speech (mostly at the request of the educator), pre-schoolers violated the structure and changed the meaning of phraseological units.

According to the **expressive-stylistic criterion**, the state of development of operations of expressiveness of speech colouring in children was studied according to the following indicators: *evaluation*; *emotionality*; *figurativeness* (Fig. 7).

Thus, it is established that evaluation, being a qualitative characteristic of expressive speech, is manifested in children during the use of phraseological structures, but episodically and insufficiently or expressed. Thus, pre-schoolers have difficulty giving approving or disapproving characteristics to objects and things by means of phraseology. When children try to evaluate someone or something, it is an evaluation of their own actions, relationships, themselves. Notably, such assessments are mostly stylistically reduced, they are disapproving. For example: «Ну що ти, Віталька, молотиш язиком своїм, як ота мельниця?» (“*to flap one's jaw*”), «Давай помагай нам, Настя, а то знову сидиш, все байдики б'єш» (“*to twiddle one's thumbs*”), «Ну чого ти не витерла куклу? Її брудко у руки взяти!». Through the use of these phrases in speech in a certain context, pre-schoolers conveyed a negative attitude of peers' actions, condemned misbehaviour (7.7% of children). However, there were also positive evaluations, admirations, expressed by means of phraseologisms, but these were singular, episodic, and individual cases of explication (3.5% of children). For example: «Вова знає як треба машинку

заводити як своїх п'ять пальців» (*"like the back of one's hand"*), «Гарна сьогодні Маринка як квіточка, що біля нашого дома у клумбі росте» (*"pretty as a picture"*),

«Красивий Саша, як козачок». 4.9% of children were unable to express evaluation in their own speech with the help of phraseology (Fig. 7).

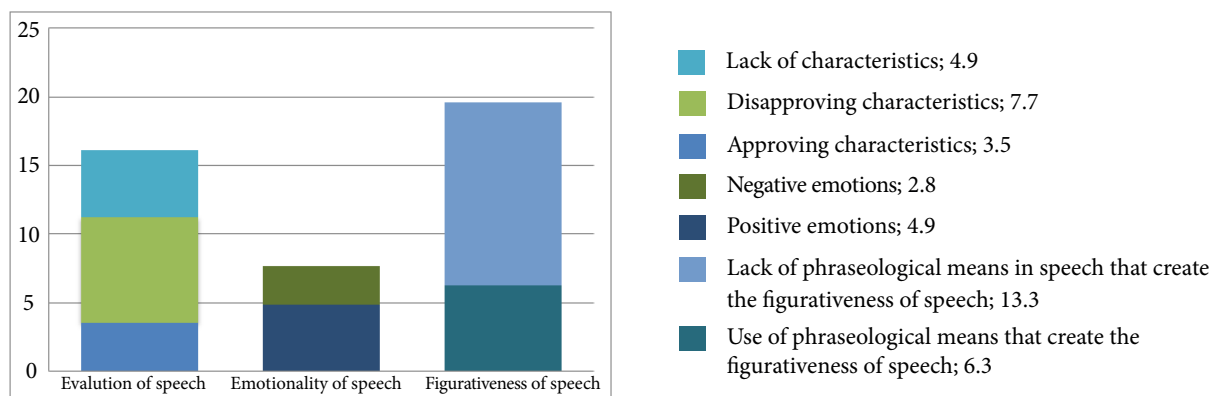


Figure 7. Experimental data on the development of operations of evaluation, emotionality, and figurativeness of speech as qualitative indicators of expressiveness of children's speech, %

Pre-schoolers rarely expressed emotionality, emotional states (admiration, joy, surprise (curiosity), resentment, confusion) through phraseological units. For example: «Наталя Петрівна, а правда красиво у нас в групі? Аж душа радіє!» (*"the heart fills with joy"*), «Буду спати зараз без задніх ніг, бо втомився» (*"sleep like a baby"*), «Не скажу, мама сказала, щоб я тримав язика за зубами, і не розказував нічого» (*"keep one's mouth shut"*). 4.9% of children expressed positive emotional states through phraseologisms, and 2.8% of pre-schoolers expressed negative emotions (Fig. 7). Thus, only in the speech of children who actively used phraseologisms, emotionally colored speech was traced. These were both in situations of independent explication of phraseological expressions in spontaneous speech, and situations of stimulation of their speech by the educator. In all these cases, the children reproduced the phraseologisms available in their speech and speech experience completely, correctly, and accurately, appropriately using phraseologisms in specific life situations, "fitting" them into the context of expression.

Figurativeness of speech is characteristic of children who showed the ability to understand the secondary meaning of phraseologisms in a situation where they were offered variants of meanings, as well as pre-schoolers who

reproduced phraseologisms without making various changes (reduction, transformation), but in a situation where the educator encouraged them to use phraseologisms in speech. 6.3% of children used phraseological units that created the figurativeness of speech, but 13.3% of children did not use phraseological means in speech to ensure the figurativeness of speech (Fig. 7). This is confirmed both by children's understanding of the meaning of phraseological units offered to them for perception and by the actual facts of children's use of phraseological units in their own speech. Thus, the understanding and correct reproduction of phraseologisms already testify to the figurativeness of children's speech, created by means of both understandable and reproduced in speech with phraseologisms.

Analysis of observation results of the state of development of children's operations of understanding the figurative meaning of phraseologisms, as well as the use of phraseologisms in speech showed the uneven development of these operations, and also allowed to determine individual levels of completeness of relevant operations in children: high, sufficient, average, low (Table 3).

The different levels of development of children's operations of understanding the meaning of phraseologisms and their use in speech are graphically presented in Figure 8.

Table 3. Levels of development of operations of understanding the meaning of phraseologisms in children and their use in spontaneous speech

No.	Criteria	Units of measurement	Levels of development of speech operations (%)			
			High	Sufficient	Average	Low
			POINTS	POINTS	POINTS	POINTS
			48-41	40-28	27-19	18-0
1.	Semantic	Operations of understanding the meaning of phraseologisms	7.4	35.4	44.2	13.0
2.	Pragmatic	Operations of using phraseologisms in speech	3.5	14.7	19.9	61.9
3.	Expressive-stylistic	Operations of evaluation, emotionality, figurativeness of speech	–	17.6	78.9	3.5
4.	The average indicator of the development of operations of understanding the meaning of phraseologisms in children and their use in speech		3.5	22.6	47.7	26.2

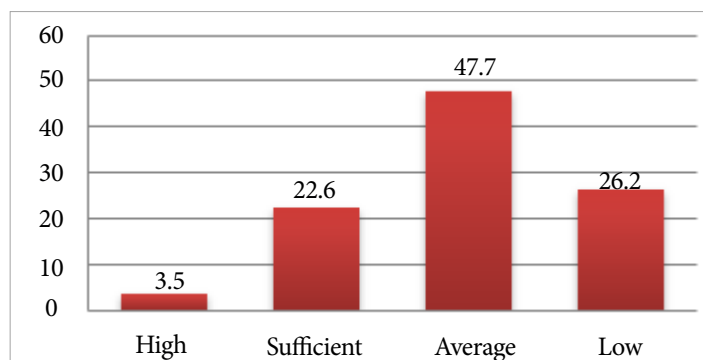


Figure 8. Levels of development of children's operations of understanding the meaning of phraseologisms and their use in speech

It was established that each level of development of operations of understanding the figurative meaning of phraseological units and their use in speech is correlated with certain psychological and psycholinguistic characteristics.

The high level of development of operations (41-48 points) includes children (3.5%), in whom the operations of understanding the figurative meaning of phraseological units and operations of using phraseological units in speech are fully developed. Pre-schoolers not only understand the figurative meaning, but also try to explain it, but in a unique way, typical of children of this age (explain figurative meaning by revealing the meaning of phraseologisms with specific examples, which is one of the direct manifestations of generalised figurative meaning particular phraseological unit; describe the phraseologism closely to the correct interpretation; replace phraseologism with a synonymous phrase). Children actively operationalise phraseological structures in spontaneous speech, use them grammatically correctly, do not change their established form, accurately actualise them in spontaneous speech. Children's speech is characterised by pronounced emotionality, it is emotionally coloured in expressive and figurative terms, contains phraseologisms with words-concepts. In the statements of pre-schoolers, approving and disapproving characteristics can be traced by means of phraseological structures.

A sufficient level of development of operations (28-40 points) includes children (22.6%), in which operations of understanding the meaning of phraseologisms and their use in speech are partially developed. These children understand phraseologisms in the literal sense, and also reveal the figurative meaning of phraseological units not by self-interpretation, but only by choosing a variant of meaning from the functional equivalents given to them. Pre-schoolers actualise phraseological units in speech mainly in the situation of the educator's request to use unusual expressions during the retelling of a fairy tale; reproduce phraseology in the established form; use phraseologisms accurately. Children are able to evaluate the actions of peers, to give approving or disapproving characteristics by means of phraseologisms, but the evaluation of speech is nominated mostly by negative, stylistically underestimated characteristics. Pre-schoolers express the emotionality of speech with the help of phraseological compounds that reproduce emotional states (admiration, joy, surprise, resentment, confusion).

The average level of development of operations

(19-27 points) includes 47.7% of children with minimally developed operations of understanding the meaning of phraseologisms and their use in speech. These children do not understand the figurative meaning of phraseologisms, but in a situation of additional stimulation (choosing a variant of the meaning of the proposed) choose both figurative and associative meanings. Pre-schoolers explain phraseological units in the process of retelling fairy tales and only in situations where the educator reminds them of the need to use unusual expressions. By reproducing phraseological structures, children usually change their established forms through reduction and transformation. Children belonging to this group operationalise phraseologisms inappropriately in different speech situations. Evaluations and emotionality are not traced in expressions. The figurativeness of speech is determined by the phraseological structures heard from fairy tales and used during their retelling.

The low level of development of operations (0-18 points) includes children (26.2%), in which operations of understanding the meaning of phraseologisms and their use in speech are undeveloped. These children understand neither the figurative nor the direct meaning of phraseologisms. In a situation of additional stimulation, they choose both associative and semantically abnormal meanings. This group also includes respondents who do not communicate with the educator/psychologist. There are no phraseologisms in children's speech.

The study made it possible to record the *difficulties* associated with deciphering the figurative meaning of phraseologisms and their verbalisation in speech, namely: a) the difficulty of inhibiting the nominative meanings of individual words that form the phraseological structure; b) difficulties of abstraction from external (accidental) associations; c) difficulties in explaining figurative meanings of phraseological units in spontaneous speech.

The authors of the study believe that the causes of these difficulties are the underdevelopment of children's speech and cognitive operations, namely: underdevelopment of metaphorisation, "deactualisation" of the components of phraseological units (transposition of semes); undeveloped operations of semantic syntax and choice of linguistic meanings of words; undeveloped operations of secondary semiosis, when the finished phrase (phraseologism) is used to denote another meaning; underdevelopment of comprehension operations; undeveloped operations of

inhibition of side associations, which cause inaccurate, incorrect understanding of the meaning of phraseologisms; underdevelopment of operations of abstraction from the denotative meaning of individual words, from which a coherent phraseological expression is formed; limited language and speech experience of children; limited life experience of children; dominance of visual-sensory impressions and concrete-figurative thinking over abstract and verbal-logical thinking; underdevelopment of operations of memorising phraseologisms and keeping them in memory.

Additionally, a significant reason for the emergence of these difficulties in children is that in preschool education still not enough attention is paid to the purposeful development of children's operations to understand the figurative meaning of phraseologisms, as well as to work to enrich children's speech with phraseological expressions and use these persistent colorful, witty and accurate expressions in communication. Thus, pre-schoolers occasionally perceive phraseologisms in the environment of preschool (perhaps in the family environment, in the surrounding reality); they do not have any practice of systematic explication (use) of phraseologisms in spontaneous speech (due to the lack of appropriate purposeful work in the preschool, specially created situations that would stimulate children to express themselves using phraseologisms), which leads to the fact that most perceived and meaningful expressions "shift" into the passive speech of pre-schoolers.

CONCLUSIONS

Pre-schoolers acquire the phraseologisms of their native language spontaneously, under the influence of the speech of others (by imitating the language of adults, repeating

interesting and unusual expressions), and selectively (children use simple phraseologisms in speech, which are accessible to understanding, close to their life experience). Pre-schoolers understand the meaning of phraseologisms better than use them in oral speech. The use of phraseologisms in spontaneous speech is a more complex speech operation for children than the operation of deciphering the figurative meaning of phraseologisms. The authors of this study explain this by the fact that in the senior preschool age the active vocabulary of children is being enriched (including phraseologisms heard from adults in everyday life in certain situations), at the same time most phraseological structures shift into the passive vocabulary of children. The phraseology of pre-schoolers is stylistically homogeneous, it is represented only by those phraseological structures that are most often used by both adults and children.

The study showed that both the operations of children's understanding of the figurative meaning of phraseological units and the operations of using phraseological units in spontaneous speech have an individual character. Children understand the meanings of phraseologisms differently and use them differently in speech.

Thus, the study allowed us to assert that both operations of understanding the figurative meaning of phraseological units and operations of using phraseological units in spontaneous speech are still at the stage of formation and require further development in older preschool children. The authors of this study see *prospects for further research* in the development and testing of psychotechnologies for the purposeful formation of operations in children of older preschool age to understand the figurative meaning of phraseologisms and their use in speech.

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Психолінгвістичне вивчення мовлення дітей старшого дошкільного віку: особливості розуміння значення фразеологізмів і вживання їх у спонтанному мовленні

Анотація. Оволодіння фразеологією рідної мови важливе для мовленнєвого та психічного розвитку дошкільників; за допомогою фразеологізмів діти можуть експресивно відтворювати в мовленні різноманітні соціальні події, неупереджено характеризувати людей, їхні дії та вчинки. Мета наукової роботи – вивчити психолінгвістичні особливості розвитку в дітей операцій розуміння переносного значення фразеологізмів і вербалізації їх у спонтанному мовленні. З цією метою використовувалися методи оцінювання розуміння переносного значення приказок і метафор, прямого тлумачення слова, вибору одного варіанта значення із кількох парафраз, опитування дітей, фіксація їхніх висловлювань на диктофоні, бесіди з дітьми. Аналіз мовлення дітей відбувався за критеріями та відповідними показниками: семантичний (лексичний, метафоричний, концептуальний), прагматичний (активність вживання фразеологізмів, правильність відтворення, доречність актуалізації), експресивно-стилістичний (оцінність, емоційність, образність мовлення). За результатами дослідження було виокремлено чотири рівня розвитку в дітей операцій розуміння переносного значення фразеологізмів і вживання їх у мовленні: високий, достатній, середній, низький, кожен з яких співвідносився з певними психологічними та психолінгвістичними характеристиками. Встановлено, що оволодіння дітьми фразеологією відбувається стихійно, під впливом мовлення оточуючих, та вибірково. З'ясовано, що дошкільники краще розуміють значення фразеологізмів, ніж уживають їх в усному мовленні; виявлено, що використання фразеологізмів у спонтанному мовленні є для дітей складнішою мовленнєвою операцією, ніж операція декодування переносного значення фразеологізму. Проте, і операції розуміння переносного значення фразеологізмів, і операції експлікування фразеологізмів у спонтанному мовленні потребують подальшого розвитку. Практична цінність дослідження полягає у розробленні діагностувальної методики вивчення операцій розуміння значення фразеологізмів та їхнього вживання у спонтанному мовленні в зоні актуального мовленнєво-мисленнєвого розвитку дитини

Ключові слова: розуміння переносного значення фразеологізмів, експлікування фразеологізмів, студіювання мовлення, фразеологічні одиниці

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Abstract. The study investigates the preschool sector of education in Singapore and the system of its management. New socio-economic conditions require a new theoretical and methodological basis of the educational process. Studying the experience of the functioning of other educational systems provides an opportunity to implement effective ways of reforming in the domestic educational system. This fact proves the relevance of the study. The purpose of the study is to investigate the experience of public administration and modernisation of the modern system of preschool education in Singapore. The research was conducted on the basis of systematic, personality-oriented, axiological and synergetic methodological approaches to the study of pedagogical phenomena and with the use of such theoretical research methods as the method of analysis, synthesis, comparison and systematisation. The author identifies areas of public impact on the mostly private preschool sector in Singapore and areas of its reforming. It has been established that the main areas of updating Singapore's preschool education includes the development of a conceptual framework for the preschool education sector, improvement of the quality of staff professional training, reorganisation of the management system of preschool education and implementation of the principle of meritocracy, which provides equal access to quality preschool education for all Singaporeans. The study analyses the main aspects and specific features of introducing the conceptual framework "Nurturing the early learners". The conceptual framework is a recommendation and guide for developing educational programmes in preschool institutions of the country and gives teachers some freedom to apply an individual and creative approach in the process of developing educational programmes for their preschool institutions. The author also identifies the main measures undertaken to improve the professional level of preschool teachers and the level of preschool education in general. It is concluded that due to the successful cooperation of the government and private preschool education providers and a clear delineation of their responsibilities, the government of Singapore succeeded in implementing an effective system of management of the preschool education sector

Keywords: preschool education system of Singapore, reforming of the preschool education sector, public administration, conceptual framework, subsidies, rating system, the principle of meritocracy

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INTRODUCTION

One of the main prerequisites for the country's competitiveness in the conditions of today's high-tech environment and the dominance of "knowledge economy" is to ensure effective education as a system of training high-quality professionals and effective communicators. Developed countries pay much attention to reforming and updating national education systems. In recent years, Ukraine has also been actively reforming various areas of the education sector, for example, by implementing the New Ukrainian School and 179 standards of vocational education, developed on the basis of a competency approach; developing a system of higher education standards that corresponds to the national qualifications framework; introducing a dual education system, etc.

Higher education is the culmination of the educational process, and preschool education is its beginning. Preschool education is very important for the formation of a holistic and harmonious personality in the future. It is at preschool age that the child begins to socialise, learn basic life knowledge and concepts, acquires the primary skills and abilities of social behaviour and relationships. In Ukraine, the Law on Preschool Education (2001) [1] guarantees all children access to preschool institutions. But, according to the Ukrainian Institute of the Future, there are some problems and shortcomings in providing this opportunity. Thus, at the end of 2017, there were 14,907 preschool institutions in Ukraine, but this is not enough to ensure places for all Ukrainian children in kindergartens. Preschool education in cities satisfies demands of only 66% of children, while in rural areas – of only 41%. In addition, there is an overload in the preschool sector. The existing institutions are designed for 1.14 million children, but in fact they are attended by 1.3 million children [2]. Despite some measures taken by the government (for example, organisation of inclusive groups, permission to invite legal entities and individuals to provide certain services), the modern system of preschool education in Ukraine still urgently needs modernisation both in the conceptual and methodological aspects and in the issue of effective management of the sector.

In the process of reforming and renovating the education system, it is useful to study the experience of other education systems that have already succeeded in this area. Studying the peculiarities of the organisation of these systems, their development, modernisation and reforming provides an opportunity to adopt and implement effective means and techniques for updating preschool education in Ukraine, on the one hand, and to prevent failures and save public funds, on the other hand.

Singapore demonstrates a fairly effective combination of public administration and active participation of private providers in the preschool education sector, which in the conditions of today's market economy is interesting in terms of reforming the national preschool education management system and expanding the role of the private sector in the provision of preschool services. At present, there are only 189 private preschool institutions in Ukraine, that is only 1.26% of the total number of institutions [2].

The purpose of the study is to investigate the main

features of public management of the preschool sector in Singapore's education system and the role of the state in its reforming and modernisation.

LITERATURE REVIEW

The issues of reforming and updating the national system of preschool education attract the attention of many scholars who study various aspects of this process. L. Kozak considers providing appropriate conditions for receiving preschool education, ensuring the effectiveness of personality-oriented education system, implementing the principles of democratisation, humanisation, individualisation to be the main tasks of the modernisation of preschool education. The researcher analyses the problem of the quality of preschool education systemically in aspects of children's health, intelligence, moral and aesthetic development and considers the quality of learning programmes, human resources, material, financial and psychological conditions for ensuring normal activity and development of each child to be the main criteria of the efficiency of preschool education and the stability of preschool institutions [3, p. 202]. N. Gavrysh and K. Krutiy see the main task of reforming the preschool education sector in Ukraine in updating approaches to the basic aspects of its functioning. Researchers emphasise that in the modern child-centric paradigm of preschool education it is important to review approaches to assessing modern children, their abilities, interests, cognitive and psychological characteristics and needs; to the system of professional training of the new generation of preschool teachers with changing the principles of organisation of the education process at all levels; to modern methodological support towards its simplification, specification, conformity with modern realities and needs [4, p. 8]. According to T. Andryushchenko, reforming and optimising preschool education should be implemented on the basis of the principles of individualisation and consideration of the characteristics of children, subject-subject interaction, which assumes a personality-oriented model of communication between adults and children, and the universality of preschool space and openness [5, p. 27].

Studies of preschool education systems in Asia, their management, organisation and reforming were conducted mainly by foreign researchers. Tang R. studied the conceptual, structural and organisational features of the functioning of preschool education systems in five Asian countries – China, Singapore, South Korea, Indonesia and Vietnam – and described the main common features of the systems. The author underlined a conceptual transition from an academic subject-oriented to a child-centred approach in the educational process of all these countries and a significant influence of Western philosophy of early child development [6, p. 28]. The common features are also the tendency to centralise preschool management and the desire to ensure equal access to preschool education for all citizens, regardless of their material opportunities, place of residence or individual characteristics [6, p. 31].

According to Tang Ch., since 2000, Singapore's preschool education system has undergone significant changes

and innovations. The main areas of reforming preschool education in the Republic of Singapore are the revision of conceptual and methodological approaches to the educational process, development of new programmes, modernisation of preschool institutions, as well as professional training of teachers in the preschool education sector. The author emphasises the significant role of the state in improving the quality of the preschool sector through pragmatic management of the preschool education sector and the creation of a strong management system [7].

METHODOLOGY

In the research the author used a set of theoretical research methods: analysis, synthesis, comparison and systematisation. The analysis of theoretical and methodological literature on the issue, normative documents, Internet sites of the Ministry of Education of Singapore and the Early Childhood and Development Agency, which regulate and control the functioning of the preschool education sector in Singapore, allowed to define the role and functions of the state in the management of preschool education institutions and to identify and systematise the main areas of reforming the sector at the present stage. The method of comparison made it possible to analyse the process of management and renewal of preschool education in Singapore in terms of content and time.

The study was conducted on the basis of such methodological approaches to the study of pedagogical phenomena as systemic, personality-oriented, axiological and synergetic. A systemic approach makes it possible to study a phenomenon in connection with other systems influencing and determining the peculiarities of its functioning. Singapore's preschool system was considered in connection with other stages of education in the country and the criteria of their continuity, as well as with different pedagogical ideas and concepts. Personality-oriented approach involves the study of the pedagogical process in terms of its effective impact on the student. The child is the centre of the educational process. The axiological approach considers learning not only in terms of students' acquisition of certain knowledge and skills, but also appeal to universal values, humanistic ideas, equal opportunities for all. It was found that the principle of meritocracy, which presupposes the equality of all people in the career development system, is the main principle of human interaction in Singapore. The synergetic approach allows to study a pedagogical phenomenon in connection with other spheres of human life,

for example, socio-economic conditions, cultural, ethnic characteristics of the population, the political course of the government. It provides a link between research and real life.

The study was conducted in several stages. The first stage involved determining the general characteristics and features of the functioning of the preschool education sector in Singapore. At the second stage, the regulatory framework of the preschool sector of education was analysed. The third stage was aimed at studying the main areas and initiatives of reforming preschool education in Singapore. The role of Singapore preschool certification systems was considered at the fourth stage of the study. At the final, fifth stage, the state's role in ensuring equal access for all young Singaporeans to quality preschool education and supporting the principle of meritocracy was examined.

RESULTS AND DISCUSSION

The main characteristics of modern preschool education in Singapore

Singapore is a small multinational city that gained its independence in 1965 [8]. Not having rich natural resources and developed industry, but trying to achieve high economic growth, the Government of Singapore focused its efforts on developing the country's human potential and training educated competitive professionals. The effectiveness of Singapore's education system, including its management, is confirmed by the achievements of Singaporean students in international competitions and rankings. Representatives of Singapore consistently occupy top positions in world rankings for assessing the quality of education [9; 10].

Compulsory education in Singapore begins in primary school, attending preschool institutions is not compulsory. Despite this, modern preschool education is popular in Singapore. Socio-economic development of the country has led to a tendency of increasing the number of working women, which, in turn, has increased the role of preschool institutions in educating little children and preparing them for school. Responsibility for the upbringing and education of young citizens of Singapore at the present stage is divided between families and preschools [7, p. 36]. According to the Early Childhood and Development Agency, in 2018 there were 1,479 child care centres and approximately 435 kindergartens in Singapore [11]. According to the Ministry of Education, in the period from 2014 to 2020 there was a significant increase in the number of children attending kindergartens under the Ministry of Education of Singapore (Table 1).

Table 1. The number of children enrolled in kindergartens under the Ministry of Education of Singapore

Year of enrolment	Number of children
2014	250
2015	951
2016	1,669
2017	2,379
2018	2,893
2019	3,841
2020	5,577

Source: [12]

Singapore's modern preschool sector is private and consists of two types of institutions: child care centres and kindergartens. Historically, each of these institutions was created to achieve different goals. Child care centres were built in the 1940s to support working mothers from low-income families, while kindergartens were organised by churches, non-profit organisations and private entities in the 1940s and 1950s for educational purposes. At present, child care centres educate children aged from two months to 7 years, kindergartens provide care and education for children aged from 2 to 7. The legislation governing the functioning of child care centres is the Child Care Centres Act of 1988 [13] and of kindergartens is the Education Act of 1958 [14]. The Education Act regulates the functioning of kindergartens in terms of staffing and qualification, location, forms, means and resources of the educational process, safety, health and hygiene, as well as preparing children for primary school. In addition, the activities of both child care centres and kindergartens are regulated by the Private Education Act [15].

Objectives and tasks of public management in the preschool education sector of Singapore

Despite the fact that all preschools in Singapore are private, the state influences their work. Until 2013, Singapore's preschool education sector was controlled by two ministries. The Ministry of Education regulated the functioning of kindergartens, and the Ministry of Social and Family Development controlled child care centres. Subordination to two different ministries led to differences in conceptual approaches. Child care centres focused more on meeting social and family needs by increasing the accessibility of these institutions to a wide range of Singaporeans, and kindergartens focused on meeting the educational needs of children, quality preparation for primary school. Fundamental differences in the concepts, goals and approaches of kindergartens and child care centres led to significant differences in their systems of management, regulation, organisation, financing of the educational process and the quality of staff training [16, p. 5].

To unify the activities of all preschool institutions in Singapore, the Early Childhood and Development Agency, which was jointly formed by the Ministry of Education and the Ministry of Social and Family Development of Singapore, started its work on April 1, 2013. The Early Childhood and Development Agency (further referred to as the Agency) functions as an autonomous agency and oversees the conceptual and methodological basis and key aspects of the educational process in both kindergartens and child care centres. The Agency's activities are based on the philosophical understanding that all children, regardless of their origins, deserve a positive experience of early childhood through quality care and education, which, in turn, contribute to the holistic development of the individual and create a strong foundation, instilling a love to learning [17].

The main tasks of the Agency are to ensure the availability of preschool education for all through subsidies and grants, quality and professionalism of the preschool

sector, quality of preschool learning programmes, high professional level of teachers by means of:

- increasing the quality of resources for educating young children;
- providing opportunities for professional growth for educators and teachers at preschool institutions;
- cooperation with parents to support the development of children and consolidate learning outcomes in preschool institutions;
- supporting strategic partnerships and programmes [17].

Thus, the main tasks of the Agency are the regulative and innovative activities in the preschool sector of Singapore. Accessibility, quality, responsibility, cooperation and partnership are considered to be the main prerequisites of the effectiveness of preschools in Singapore.

At the present stage, the issue of differences in curricula is also settled. Both kindergartens and child care centres provide a unified and formalised three-year preschool programme for children of four ("Nursery"), five ("Kindergarten 1" or K1) and six years ("Kindergarten 2" or K2) [7, p. 37]. Curricula "Kindergarten 1" (K1) and "Kindergarten 2" (K2) last 40 weeks a year, 4-5 hours a day, with a break for vacation. Preschools may also offer additional educational programmes, such as a "Playground" programme, as well as full-day or flexible in time programmes.

Updating the conceptual and methodological basis of preschool education in Singapore

Active reforming of preschool education in Singapore began in 2000, when the government officially recognised that the first years of child development are crucial for his holistic development and therefore must meet age characteristics, be adapted to the needs of quality development and education of young children [16, p. 2]. Effective development of a child at an early age ensures his readiness to study at school, eliminates racial and ethnic differences and allows to form the ability to learn throughout life [7, p. 38].

Leaving the preschool education sector to be private, the Government of Singapore took control over the development and implementation of the conceptual and methodological framework of preschool education. The Government focused on improving the quality of preschool education through balanced participation in the most important aspects, which significantly affect the child's future learning outcomes. The main activities of the Ministry of Education of Singapore and the Agency in the field of preschool sector reforming were aimed at determining the desired outcomes; developing a conceptual framework for curricula, systems and structures of teacher training; professional development and ensuring the readiness of institutions to work with children from disadvantaged families [7, p. 38].

In January 2003, the Ministry of Education of Singapore implemented the conceptual framework "Nurturing Early Learners". This conceptual framework is not obligatory, but is used as a guide for preschool teachers and educators in the process of designing and implementing a quality curriculum for children aged from four to six

in their preschool institutions. The purpose of the conceptual framework "Nurturing Early Learners" is to create a theoretical, conceptual and methodological basis for effective child development in six areas: aesthetics and creativity, discovery and knowledge of the world, language and literacy, motor skills, numeracy, social and emotional development [18, p. 6]. The framework, despite its optional nature, became the first "nationally approved" government document aimed at the development of the preschool education sector in Singapore [19, p. 205].

The management and teachers of child care centres and kindergartens, as a rule, independently develop curricula and forms of teaching for their institutions, using an integrated approach and guided by the basic conceptual framework for preschools "Nurturing Early Learners", proposed by the Ministry of Education. Previously, before the introduction of the conceptual framework "Nurturing Early Learners", kindergartens or child care centres offered different programmes depending on their own philosophical approaches and vision of the educational process as a whole [19, p. 205]. The conceptual framework "Nurturing Early Learners" recommends educators of preschool children to apply a "thematic approach" in their curricula, when the learning process is integrated around a particular topic [7, p. 39]. Within the conceptual framework "Nurturing Early Learners", six basic principles of the organisation of qualitative educational process for children of preschool age are defined [19, p. 6]:

- integrated approach to learning;
- teacher as a leader of the educational process;
- learning through purposeful play activities;
- authentic learning through quality interaction;
- children are builders of their knowledge;
- holistic, comprehensive development of the child.

The system of the principles of preschool education is based on the understanding that the child is an engaged, active and competent participant of the learning process. Following these principles in the process of the organisation of educational activities provides a complex approach to the learning process through activating various types of target games and effective interaction and, respectively, to children's independent knowledge acquisition and holistic development.

To ensure a connection between the goals and outcomes of preschool education and the entrance requirements in primary school, which is the first compulsory stage of the education system in Singapore, the Ministry of Education in 2000 proposed a list of "Desired outcomes of pre-school education". The process of determining them took place in close cooperation with specialists and practitioners in the field of preschool education. The main competencies that children should have at the end of preschool education include:

- knowledge of what is right and what is wrong;
- willingness to share and work with others in turn;
- ability to communicate with others;
- curiosity and ability to conduct research;
- ability to listen and speak with understanding;
- feelings of confidence and self-satisfaction;

- good physical shape and healthy habits;
- love for family, friends, teachers and school [20].

The proposed list of "Desired outcomes of preschool education" focused on upbringing happy and healthy children and their successful socialisation in the learning process. Along with such competencies as reading, writing and counting, the formation of certain socio-emotional abilities is no less important for the holistic development of the child [7, p. 39].

The focus on the holistic development of young children in the conceptual framework "Nurturing early learners" is expressed through rejecting a purely academic subject-centric approach to the learning process [19, p. 206] and focusing, in addition to the cognitive development of the child, on his social, emotional and moral growth [21, p. 95]. Until 2003, Singapore's pre-school education was considered only as a preparatory base for primary school, and many preschool institutions developed academic skills using a didactic approach to teaching, repetition and exercises in notebooks. In contrast, for example, preschool education in Western systems is traditionally based on play and practice through role-playing games, creative activities, reading and other group activities. The Western approach in preschool education develops life skills, the ability to solve various life problems, creativity, critical thinking, etc. In the context of "knowledge economy", creativity and innovative ability are necessary to succeed. According to the current policy of the Agency, preschool education institutions should offer holistic child development programmes that provide comprehensive – cognitive, physical, intellectual, emotional and social – development of children through partnerships between parents and preschools [22, p. 276].

In addition to the theoretical part, the conceptual framework "Nurturing early learners" contains practical advice, for example, how to plan the learning process on the basis of an integrated approach, and offers a consistent system of actions in the process of planning and developing various types of pedagogical activities. In order to effectively implement the conceptual framework "Nurturing early learners" in Singapore's preschool education system, the Ministry of Education organised and conducted workshops and seminars to familiarise teachers with the basic provisions of the conceptual framework and its application in preschool curricula. In addition, all preschools have always been provided with consulting by the Ministry of Education of Singapore. The conceptual framework "Nurturing early learners" was also distributed in all institutions of preschool teachers training in order to align their training programmes with the provisions of the conceptual framework [7, p. 40].

Another area of the activity of the Ministry of Education in Singapore is the regulation and standardisation of the qualification and professional level of teachers and pedagogical staff at preschool education institutions. In 2003-2008, a policy of compulsory training for preschool teachers was introduced in order to ensure that their professional level and knowledge of English correspond to modern requirements of preschool education. In 2008, every fourth teacher had a Diploma in preschool education

(track – Teaching), the rest – a Certificate in preschool education (track – Teaching). In 2013, the Ministry of Education increased the professional requirements for teachers working in preschools on the programmes “Kindergarten 1” (children of 5) and “Kindergarten 2” (children of 6) to the Certificate of General Education (CGE) of Ordinary (“O”) level in English language and a Diploma in preschool education (track – Teaching) [23, p. 102]. English is the official language of the educational process in Singapore.

The main principle of Singaporean society is the principle of meritocracy, according to which the success of each person depends solely on his work and diligence, not on family ties or social status. The government considers one of its main tasks to ensure equal conditions for the development and self-realisation of all Singaporeans, including pre-schoolers. According to optional nature of preschool education in Singapore, children enter primary school with different levels of training. This fact causes unequal opportunities at the beginning of school, creates social inequality, giving preference to those children who received better preschool education and had access to more educational resources and therefore were better prepared for primary school [22, p. 275]. Taking into account the importance of preschool education, the Government takes measures to involve as many children as possible into the preschool sector in order to equalise their opportunities to learn at an early stage of development. For example, in March 2007, the Ministry of Education introduced a programme for improving the quality of preparation for primary school. The programme is implemented in three areas, namely:

- identifying children with a low level of preschool outcomes and providing necessary assistance at preschool institutions;
- identifying five-year-old children who do not attend preschool institutions and giving them the opportunity to attend preschools through financial assistance;
- identifying six-year-old children who do not attend preschools and encouraging them to attend preschool institutions for improving their English language skills and preparing for school life [7, p. 42].

To support low-income families in Singapore, there is a State preschool financial assistance scheme, which provides 90% compensation of the monthly fee for visiting the preschool institution. In 2007, an additional monthly assistance to low-income families in the amount of 200 Singapore dollars was introduced to cover the registration fee and purchasing a uniform [7, p. 41]. Moreover, the fee for attending preschool education institutions is rather small. At present, there are many different public or private subsidy programmes in Singapore's preschool sector.

Certification and assessment of the quality of preschool education institutions in Singapore

Obligatory formalised and standardised schemes for assessing the quality of preschool education have not been developed in Singapore. The country has a voluntary system of certification in the preschool education sector. Educators

and teachers independently keep diaries of observation, on the basis of which the inspectors of the Agency make a decision on the certification of a preschool institution [24].

One of the common voluntary certification systems is the SPARK system, which stands for Singapore Preschool Accreditation Scheme. During the accreditation of the preschool institution the diaries of teachers' observations with results of their self-assessment are studied. Curricula, lesson plans, schedule and peculiarities of the organisation of the learning process are also analysed. To assess the effectiveness of the learning process, inspectors use the method of observation and interviewing. The inspection usually lasts for two working days. According to the results of the inspection, a certificate is issued, which affects the rating position of a preschool institution in Singapore. The popularity of such ratings among parents encourages preschools to take an active part in the process of assessing. According to the statistics of the Agency, in 2017, 790 preschools participated in the voluntary SPARK certification, in 2018 – 879, and in 2019 – 948 [25]. According to the evaluation criteria of the SPARK rating system, certificates of three levels are issued – basic, medium and high. Until 2016, the Certificate was given for 3 years, at present – for 6. To receive the SPARK Certificate, a preschool institution must meet the following criteria:

- comply with basic licensing requirements;
- at least 75% of the teaching staff must have Diplomas in preschool education;
- the Head of the preschool institution must have a Diploma in preschool education (track – Teaching) and a Diploma in preschool education (track – Leadership), as well as work experience in the preschool sector for at least 2 years;
- the preschool must undergo “Quality Assurance Training” at the Agency [24].

CONCLUSIONS

Considerable changes have taken place in Singapore's preschool sector since 2000. Despite the fact that the preschool sector is completely private in Singapore, the Government has managed to establish an effective system of preschool education management. The main areas of state reforming in the preschool education sector were the development of theoretical and methodological framework “Nurturing early learners”, unification of the management of preschool institutions, increasing the professional level of preschool teachers and providing guaranteed opportunities to get preschool education for all children.

The development of the conceptual framework “Nurturing early learners” allowed, on the one hand, to change approaches to the educational process, move from an academic subject-centric to child-centred approach, which provides holistic development and socialisation of the child through his active participation in play, and on the other hand, to systematise the basic provisions and criteria of educational programmes in preschool institutions. The establishment of the Early Childhood and Development Agency brought together child care centres and kindergartens under one governing body, which also unified the principles of their functioning. The introduction

of new qualification requirements for preschool and new programmes for their professional training ensured an increase in their professional level. The impact of rating systems on the economic efficiency of preschool institutions stimulates them to actively participate in certification and improve the quality of preschool education in general.

Implementing various material assistance programmes for low-income families and additional training programmes to prepare individual children for primary school provides equal opportunities for all preschool children and upholds the principle of meritocracy, which is a fundamental principle of modern Singapore society.

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Державний менеджмент і реформування дошкільної освіти Сінгапуру

Анотація. У статті досліджуються дошкільний сектор освіти Сінгапуру та система його управління. Нові соціально-економічні умови вимагають нової теоретичної та методологічної бази навчального процесу. Вивчення досвіду функціонування освітніх систем інших країн надає змогу запровадити ефективні й апробовані методи реформування в українській освітній системі, що обумовлює актуальність дослідження. Метою статті є вивчення досвіду державного управління та модернізації сучасної системи дошкільної освіти Сінгапуру. Дослідження проведено на базі системного, особистісно-орієнтованого, аксіологічного й синергетичного методологічних підходів до вивчення педагогічних явищ з використанням таких теоретичних методів досліджень, як метод аналізу, синтезу, порівняння та систематизації. Автором визначені сфери державного впливу на, здебільшого, приватний дошкільний сектор Сінгапуру та напрями його реформування. Встановлено, що основними напрямками оновлення дошкільної освіти Сінгапуру стали розробка концептуальної бази функціонування дошкільного сектору освіти, підвищення якості професійної підготовки фахівців, реорганізація системи управління закладами дошкільної освіти та реалізація принципу меритократії, який передбачає рівний доступ до якісної дошкільної освіти для всіх сінгапурців. У статті проаналізовано основні аспекти й особливості запровадження концептуальної рамки «Виховання дітей раннього віку». З'ясовано, що концептуальна рамка носить рекомендаційний характер і є керівництвом для розробки навчальних програм у дошкільних закладах країни, що, зі свого боку, надає педагогам певну свободу й можливість застосування індивідуального та творчого підходу в процесі складання навчально-виховних програм. У статті також визначено основні заходи підвищення професійного рівня педагогів дошкільної освіти та рівня дошкільної освіти в цілому. Зроблено висновок, що завдяки успішній співпраці уряду й приватних провайдерів дошкільної освіти та чіткого розмежування сфер їхньої відповідальності, уряду Сінгапуру вдалося створити ефективну систему управління дошкільним сектором освіти

Ключові слова: система дошкільної освіти Сінгапуру, реформування дошкільного сектору освіти, державне управління, концептуальна рамка, субсидування, рейтингова система, принцип меритократії

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The Establishment of the System of Foreign Students' Social and Pedagogical Support in the United States of America (1911-1920)

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Abstract. The study analyses the historical basis of the system of social and pedagogical support of foreign students in the United States. The relevance of the study lies in the importance of modernisation and the regular improvement of adaptive preparatory programmes in the linguistic, psychological, and sociocultural areas. However, this requires the use of the experience of countries with the biggest practice of working with foreign students, namely the United States. Therefore, the purpose of the study is to analyse the organisational structure of the system of social and pedagogical support of foreign students in higher education institutions in the United States at the initial historical stage. The methods of analysis, synthesis, and generalisation were used during the research. Also, for a more effective study of social and pedagogical and infrastructural development of the adaptive training system of foreign students, a method of chronological coordinates was developed. The stage from which it is necessary to begin the study of the history of the system of foreign student support is highlighted, namely the period of 1911-1920, marked as organisational and constitutive. It is revealed that the stage is characterised by the emergence of the primary foundations of the counselling centre for the support of foreign students; the creation of the first structured national associations of foreign students and the adoption of fundamental legislative initiatives that provided the development of the support system. It is substantiated that the process of structuring the support system in the United States should be considered after 1919 (defined by the author as a period of diachronic- synchronous unity) when the Institute of International Education was established. The practical significance of the study lies in the first systematisation of historical material and its presentation as an organisational and constitutive stage. The presented results of the research can be practically applied in the process of preparation of lecture material on the history of social work in the USA and the world; in the framework of public and non-profit organisations

Keywords: adaptation, counselling centre, internationalisation of education, counselling, acculturation, legislative regulation

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INTRODUCTION

The increase in the number of international students in the world, in particular in the United States of America (as the country with the largest number of citizens of other countries in their higher education institutions) raises questions about the effective development of the system of social and pedagogical support. But in order to increase the effectiveness of modernisation processes in adaptation programmes for foreign students, it is necessary to explore

the historical basis of social and pedagogical support, which will identify the reasons for the creation of the first counselling programmes and movements to help foreign students.

The development of the system of social and pedagogical support for foreign students in the United States was dictated by certain driving forces both by the students themselves and by the United States government.

The study of the historical development of adaptation measures will make it possible to assert the existence of a long historical path of establishment and transformation of the support system. However, it is necessary to understand that not only the desire and ability to build interpersonal contact with representatives of the host country is a major factor in the historical development of the support system. Legislative initiatives, the interaction between organisations aimed at acculturating citizens from other cultural groups, etc. are also important elements.

It is also important to understand the essential characteristics of the goals set by the educational institutions of the United States and the state as a whole. The first is the export of the US education principles to other countries. The second goal is to attract international students from different countries to study in the US educational institutions for their possible involvement, in the future, as naturalised specialists. The outlined actions lead to the phenomenon of internationalisation of education, which, according to B. Bern and T. Vestal [1-2], is a necessity for the state, as well as the promotion of diversity. Thus, all these features and goals became the driving forces of sustainable establishment, and later – the rapid development of the support system for foreign students. In addition, without an analysis of the historical background, it is impossible to understand the causes and conditions of the current branched system of social and pedagogical support.

The purpose of the study is to investigate the features of the organisational structure of the initial stage of the establishment of social and pedagogical support system and adaptation of foreign students in the United States of America.

LITERATURE REVIEW

The issues of adaptive training of foreign students, in particular in the process of using multicultural education, have been studied by many researchers. Thus, L. Sidun considered the basic concepts of multicultural education in the United States, namely ethnic, cultural deprivation, language, the concept of anti-racism, radicalism, genetic determinism [3]. A more historically oriented and thorough study was conducted by M. Volovikova [4] and investigates the peculiarities of the development of the theory and practice of multicultural education in the United States. For her part, I. Kalacheva [5] paid attention to the study of the characteristic features of multicultural education, comparing the US experience with the European, which included consideration of the historical preconditions for the establishment of multicultural education. The issues of theory, practice, as well as the main practical goals and objectives of multicultural education in the United States, are investigated in the works of E. Baranova [6] and J. Banks [7-8], O. Gaganova [9], O. Goncharenko [10], S. Naushabayeva [11], C. Slyther, K. Grant [12] and others.

The presence of cultural and language barriers and their impact on social relations between a foreign student and representatives of the United States, as well as the psychological component of student behavioural transformations, were considered by M. Jackson, S. Ray, D. Bybel [13]. At the same time, it is interesting to study the

motivation and problems of students of a particular national group who chose the US educational institutions as a place of getting an education (T. Gefner-Bab, R. Hoshlessan [14]). For their part, the study of foreign students in universities and colleges of the United States in the historical context was studied by L. LeBlow [15] and E. Akanwa [16].

Notably, that the researchers also paid attention to the study of various problems that arise in foreign students and, directly the aspects of interpersonal and intercultural relationships. For example, issues of micro-aggression, as well as racism and xenophobia toward foreign students who have other sociocultural norms, have been considered by scholars such as H. Yeo, R. Mendenhall, S. Harwood, M. Hunt [17]. Most frequently, such culturally oriented problems are the cause of communication self-isolation of a foreign student, the consequence of which, among other things, may be insufficient effectiveness of linguistic adaptation, which leads to the impossibility of full communication, as confirmed by C. Wang, J. Ann, H. Kim and K. Lynn-Siegler [18]. Thus, the author of this study concludes that there is no thorough research of the initial stage of establishment of a full-fledged system of social and pedagogical support in the United States, taking into account the organisational structure aimed at foreign students, which indicates the relevance of the chosen research topic.

MATERIALS AND METHODS

During the study, such methods as analysis, synthesis, and generalisation were used, which helped to consider and analyse the establishment of the structure of social and pedagogical support system of foreign students in the United States.

Investigating the historical basis of the development of social and pedagogical support and the transformation of this phenomenon into a system, it is necessary to determine the method of periodisation that will be used. According to the logic of developing the structure of the study, the most effective, in the author's opinion, is the use of the dichotomy "diachronic method- synchronous method", which was studied by F. Chermak [19], P. Swiggers [20], G. Talmi [21]. and others. According to F. de Saussure, who separated these methods, synchrony is "the relation between co-existing elements", while diachrony is "the replacement in time of one element by another, i.e. event" [22]. At the same time, according to Y. Olkhovska, the subject of the synchronous method is relations "which connect coexisting elements and form a system", and the subject of the diachronic method is relations which connect elements in the order of historical sequence which is not perceived by the same collective consciousness; elements that replace each other but do not form a system" [23]. It is also worth referring to the conclusions of S. Vasilieva that "the diachronic method is characteristic of structural-diachronic research as a type of research activity, the purpose of which is to identify the characteristic features of construction in the time of dissimilar processes" [24]. Thus, diachrony, according to researchers, does not provide an opportunity to study the system, which requires research. On the other hand, the

synchronous method is aimed at studying the system, but within a single collective consciousness, which blocks the need to study the historical and institutional basis.

Thus, for the choice of method, it should be noted that periodisation involves the division of the historical development of a particular process into stages, i.e., builds a certain historical sequence, which demonstrates the need for a diachronic method. But, on the other hand, the synchronous method makes it possible to study a certain period of time directly in the historical context. Therefore, the understanding of the importance of the synchronous method arises. In this regard, the author considers it necessary to apply both elements of the dichotomy concerning the performance of different tasks. To build a historical analysis of the development of support for foreign students, it is necessary to use a diachronic method, which will not allow studying the systematic development of support for foreign students at the stage of periodisation but will help to create a historical vertical. For its part, to understand the preconditions that were indicators of the establishment of a system of support for foreign students in the US educational institutions, it is necessary to use a synchronous method that will make it possible to explore the stage of periodisation in the space of its collective consciousness. Additionally, in the process of using the diachronic method, it is important to take into account its prospects [25], namely prospective (to study the development of social and pedagogical support in chronological order) and retrospective (which directs research to historical aspects).

Thus, to identify the chronological periods of the most significant changes in the social and pedagogical, and institutional development of the adaptation process in the US higher education system, a method of chronological coordinates was developed. For its application, it is necessary to build the studied time period in the form of a stage. Significant innovations or changes in a particular period should be applied to the chronological plane, which has a diachronically and synchronously directed coordinate axis. Given the conclusions of scientists considered earlier, the diachronic axis should include a chronological sequence of effective manifestations of the selected stage. At the same time, events (points) that contributed to the development of the adaptation process in the time dimension of a particular year should be laid on the synchronous axis.

As a result, there is the opportunity to build a diachronic arc (in case of a considerable number of significant dates in the study phase), as well as a synchronous arc (only in the place where the synchronous process is detected). Additionally, it should be noted that the synchronous arc is built from the diachronic coordinate axis due to the fact that the synchronicity process is a consequence of the diachronic chronological sequence. If several synchronous branches appear in the period of one stage, the appropriate number of synchronous arcs must be applied. Therefore, the chronological plane can only have one diachronic arc and many synchronous arcs (depending on the degree of synchronous development of the studied time period).

In the plane of intersection of the diachronic and

synchronous arcs, there is a field on the chronological plane, which was defined as "*the period of the diachronic-synchronous union*". Its presence makes it possible to determine specific time frames when a diachronic-synchronous process takes place in a certain period. The greater the number of periods of diachronic-synchronous unity is presented in the studied chronological stage, the more effective it is for the development of the system of social and pedagogical support.

RESULTS AND DISCUSSION

Creating the infrastructure for effective social and pedagogical support was a challenge for American society in the early 19th century. The increase in the number of foreign students and the geography of the countries from which they came to the United States, reflected the desire of foreign nationals to receive a better level of education. Thus, one of the first researchers to document the history of foreign students in the United States, K. Du Bois, concluded that "the desire to learn outside one's society, nation, or culture is as long as the study itself ... and reflects the ability of people to communicate with each other at different levels, with varying complexity, bypassing the barriers of social characteristics" [26]. Therefore, to overcome communication barriers and acculturation of foreign students, an appropriate support system was created, the first stage of which can be considered 1911-1920 and described as organisational and constitutive.

Notably, one of the central elements in the development of the international student support system in the United States and the first full-fledged counselling centre is the Committee for Friendly Relations among International Students [27-28], founded in 1911, which was a branch of the International Committee of the Christian Youth Association and aimed to assist students arriving in the United States. The work of the committee was divided between the so-called national departments [29], each of them was responsible for the representatives of a particular national group among students. Later, in the 1920s, the largest departments were Chinese, Japanese, Latin American, Filipino, and departments of other nationalities with minimal representation by foreign students. In addition, the Committee performed certain functions related to the support of students from other countries, including [30]:

1. Advising students before they leave their countries through the work of educational leaders or representatives of national associations (this function has been further developed and is active now when colleges and universities apply a programme of pre-adaptation preparation of foreign students to continue their training in the United States: such training develops (if necessary) initial language skills, acquaintance with the features of American culture (which will help reduce the negative impact of culture shock), as well as psychological preparation of the student's personality for future problems;

2. Meeting students upon arrival in the United States and providing food, housing, city guide (these meetings of foreign students, assistance in their accommodation, and acquaintance with the host city, are the responsibility of the

counselling centre within the modern system of student admission. In addition, special guides are provided to help students learn about education and culture in the United States, as well as the specifics and benefits of their chosen institution. Also, nowadays, counselling centres assist in obtaining visas, insurance, etc. and the provision of various legal services);

3. Providing foreign students with information on choosing an educational institution, as well as supporting admission to the chosen educational institution (this function of the committee is relevant today only in the format of pre-adaptation preparation using the information component. Thus, in the 1920s it was difficult for students (for example, from China or the Philippines) to obtain the full amount of information required about an educational institution in the United States without personally arriving in the country, therefore, the committee's work on this issue was important. The question arises as to the first point, in which students were consulted before leaving their country, and why was the information about the choice of an educational institution not provided at that time? It may be assumed that the representatives of the associations that provided advice did not have complete information about all American colleges and universities, so their task was to conduct a general campaign for admission to the educational institutions of the US and providing an initial level of information;

4. Acquaintance with the community of the educational institution or other representatives of the local society (in this case, one can talk about the activities of socialisation of a foreign student as part of the adaptation process). Thus, in the 1920s, attention was paid to interpersonal and intercultural interaction between a student from another country and representatives of the host country. In the support system today, this aspect plays an important role in consolidating the theoretical skills of interpersonal interaction in practice, when a foreign student has the opportunity to establish contact and communicate with a representative of another cultural environment, which will allow identifying problem areas in the adaptation system, the solution of which requires further efforts. Additionally, when meeting other people, the student will be able to more effectively adapt to the new (for themselves) academic model, while communicating with local society is aimed at developing ideas about the characteristic features of the host country, specifically in practical terms);

5. Providing information on earning opportunities for students who self-finance their studies (the activities of the committee in this area provided combining learning and work, which today is not one of the main points of activity of counselling centres);

6. Encouraging students to participate in summer conferences and other motivational gatherings of an international character (participation in scientific and social and cultural activities in the period between academic courses allows not to lose skills acquired during the academic year. Such events are still relevant today when the US educational institutions not only hold conferences or meetings in the summer but also organise summer training camps for

foreign students, which also use structured curricula and offer participation in specialised courses, etc.);

7. Providing support to students in solving their moral or religious problems, or helping to adjust their lives in the United States (today this area is more widely used because problems are divided not only into moral and religious, attention is paid primarily to acculturation and problems arising from it, which include differences between countries and cultures, linguistic features, the academic component, which varies in different countries. It is the solution of problems in three areas, namely sociocultural, academic and psychological, that makes it possible to talk about the possibility of performing the necessary activities within the framework of living in the United States. Therefore, a modern understanding of the adjustment of academic and social activities for international students can be considered full-fledged and effective).

Although the Committee made efforts to coordinate and support international students, it also assisted in the publication by national committees of collections of students' publications, which contributed to the academic and scientific improvement of students. Thus, among such collections are *The Japan Review* [31-33], *Christian China* [34], *The Chinese Students Christian Journal* [35-36], *El Estudiante Latino Americano* [37]. Many publications are still being published today.

A special role in the activities of the Committee was played by the involvement of foreign students in Summer Student Conferences that were held in different parts of the United States and provided an opportunity for foreign students to establish contacts with other foreign students and the most successful representatives of American educational institutions. It is worth noting that today colleges and universities have not refused to hold such events, which have the format of a reporting conference or an annual meeting supported by the counselling centre. Examples are the "National Meetings in Educational Institutions or Counselling Centres" held today, where international students can meet other participants from their home country and representatives of the host country.

Thus, given the activities of the Committee of Friendly Relations among Foreign Students, the conclusion is that it can be considered a prototype of modern counselling centres, designed to provide practical social and pedagogical support for foreign students. Naturally, many areas of the Committee's activity have been transformed, structured, and improved to date, which allows for more effective adaptive work with the student. However, the fact that the organisation, which operated in the 1920s paid attention to such a diverse range of work with international students, suggests that the United States has considerable experience in acculturating other countries' representatives, which requires extrapolation of such experience. Given that the Committee can be considered the first counselling centre for foreign students, the year of its origin can be defined, namely 1911, as the beginning of the first stage of the process of establishment of the system of social and pedagogical support in the United States.

The establishment of the system of American public

administration in cooperation with foreign nationals (and later foreign students) has a long history. Thus, in 1917, the US Congress passed the first immigration law, which laid some foundations for the further development of the experience of the state in cooperation with citizens representing other countries. This law was adopted in response to the social uncertainty that arose during the First World War and included the most important aspects that later contributed to the adoption of a later regulatory act. In general, the Immigration Act of 1917 required the introduction of a literacy test, which required all citizens over the age of 16 to prove basic reading and comprehension skills in any language, which naturally distinguishes it from modern requirements for foreign students who take the test, but its purpose is to confirm knowledge of English, not their native language and, subsequently, the grouping, according to the results. The law also expanded the rights of immigration officials, who were given more power to identify citizens who were denied entry to the country. [38] Thus, it can be noted that at an early stage of the legislative settlement of issues with immigrants, attention was paid to the importance of identity checks and, if necessary, refusal. Also, the law prohibited the entry of persons whose place of birth was the "Asian zone", which did not include citizens of Japan and the Philippines. Chinese were also not allowed to enter the United States, but not because they were in the "Asian Zone" but under a special law on the exclusion of Chinese citizens [39-40]. It is necessary to note the major differences in modern immigration policy from the one that existed before the beginning of the 20th century, which allows citizens from different countries to visit the United States, in particular for educational purposes.

It is also worth noting that the process of structuring international education in the United States began with the establishment in 1919 of the Institute of International Education (IIE). For example, in its 1921 guide to International Students in the United States, the Institute provided complete information about the country's education system, allowing foreign students to understand both the general structure and the challenges to be overcome. A description of the communities of foreign students that already existed at the time can be considered an important information component, which may indicate the existence of a support system for representatives of other countries at the initial stage of the historical development of internationalisation of education. Among such communities, the most prominent were:

1. The Corda Fratres Association of Cosmopolitan Clubs represented clubs that were organised at many universities to bring together representatives of each nationality in a separate educational institution. The association held a monthly congress to discuss current issues and try to find solutions. The association was actively supported by Cornell, Purdue, the University of Chicago, and others. An important feature of the organisation was to enable foreign students to build full-fledged contacts with representatives of other nationalities [30].

Thus, in the early 1900s, this organisation attempted intercultural adaptation through direct cultural contact

between people of different nationalities, which is now actively used in the system of social and pedagogical support and adaptation of foreign students to overcome the effects of culture shock. Accordingly, it can be stated that the Association of Cosmopolitan Clubs has played an important role in the initial establishment of the future system of student support.

In general, according to statistics, in 1921 there were more than 8,000 foreign students in the US higher education institutions. In terms of the number of students, who came to the country, the Philippines were in third place (857 students), the second place went to Canada (1294). The largest number of students came from China, namely 1443 [41]. This leadership of students from China led to the creation of another organisation, namely [30]:

2. Alliance of Chinese students. The organisation aimed at uniting all Chinese students in the United States held annual meetings in various parts of the country and published a monthly journal. All these actions served the mission of connecting students from China, spreading the information required to understand their interests while studying in the United States. At the same time, there was the Association of Chinese Christian Students, whose activities were aimed at the development of Christian teaching among the Chinese, which also included conferences, meetings in various parts of the United States, and a journal of the organisation was being published.

3. The American Hindu Association was created for British Indian students (India was part of the British Empire at that time), the purpose of which was to promote successful academic and social activities by members of this nation, as well as to provide American students and teachers with information about Indian culture and its citizens.

Notably, the creation of the Hindu Association was the result of differences between cultures, which in the process of direct contact do not have certain problems of mutual adaptation. Therefore, it was important to understand the features of cultural norms and traditions that form the basis of the behaviour of such students, which later allowed, within the support system, to take into account differences in the cultural component when creating a working curriculum and planning activities to promote acculturation.

4. The Philippines' third largest number of foreign students in the United States in the early 1920s led to the creation of the Philippine Student Federation in America.

There were also communities for smaller numbers of foreign students in the United States, including the Armenian Students' Organisation, the Syrian Educational Community, the Brazilian Students' Association, the Chilean Students' Association, the Latin American Christian Students' Association, the South African Students' Association, etc.

Thus, these organisations aimed to unite students from certain countries, which allowed for the regular use of a specific intercultural approach depending on the nationalities of students. After the stages of adaptation to the new culture, such a national division should not be used, because it will harm integration into society and the academic environment.

Thus, the period of diachronic-synchronous unity in the stage of isolated periodisation can be traced in 1919,

when synchronous development took place. The chronological coordinates of the first stage are presented in Figure 1.

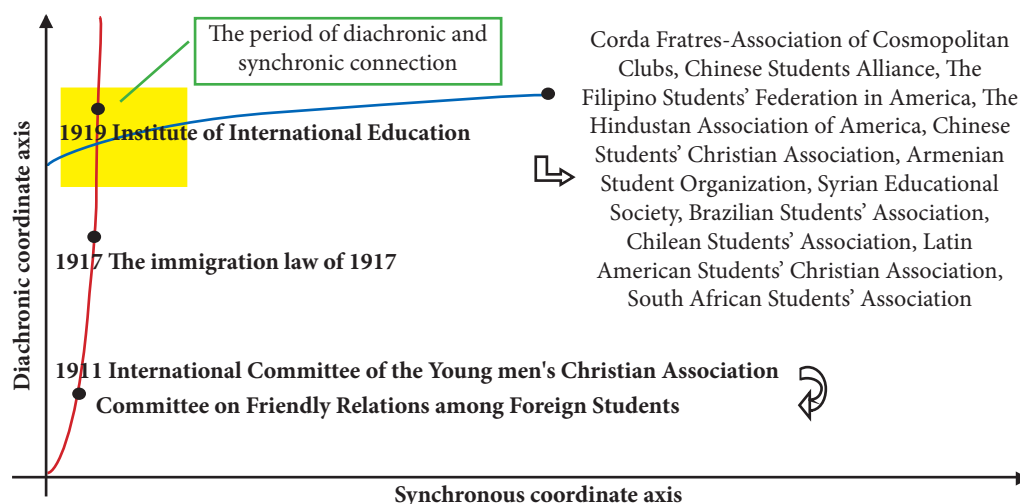


Figure 1. Chronological coordinates of the first (organisational and constituent) stage (1911-1920)

CONCLUSIONS

Thus, the creation of an infrastructure for the social and pedagogical support of foreign students is a necessary condition for the implementation of effective adaptation initiatives. The historical development of the support system in the United States was determined by the information and organisational direction, which included the creation of national adaptation groups with information, which helped foreign students get answers to current issues of social organisation and academic activities, as well as the emergence of the primary foundations of counselling centres to support foreign students. The adoption of immigration and verification legislative initiatives was a catalyst for the establishment of the legal framework for legal and academic regulation of other sociocultural groups, which is a necessary element of the system of social and pedagogical support.

The method of chronological coordinates used in the study of the historical development of the system of social and pedagogical support of foreign students in the United States in a specific period (1911-1920) made it possible to consider this stage in diachronic-synchronous context and to distinguish 1919 as a period of diachronic-synchronous unity of the organisational and constituent stage. The study of this stage helped to analyse the foundation that was laid from 1911 to 1920 and directly influenced the development of the system of cooperation with foreign students in the United States. Further studies on the periods of development of the American system of foreign students' adaptive training in the historical aspect should include the following stages of periodisation, which will allow performing a full-fledged formation of organisational and structural design of social and pedagogical support.

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Становлення системи соціально-педагогічного супроводу іноземних студентів у Сполучених Штатах Америки (1911–1920 рр.)

Анотація. У статті проаналізовано історичну основу становлення системи соціально-педагогічного супроводу іноземних студентів у США. Актуальність дослідження полягає у важливості модернізації та регулярного вдосконалення адаптаційних підготовчих програм у лінгвістичному, психологічному й соціокультурному напрямках. Однак, для цього необхідне використання напрацювань держав, що мають найбільший досвід роботи з іноземними студентами, а саме США. Тому метою дослідження є аналіз організаційної структури системи соціально-педагогічного супроводу іноземних студентів у закладах вищої освіти США на первинному історичному етапі. Під час проведення дослідження були використані методи аналізу, синтезу й узагальнення. Також, для більш ефективного дослідження соціально-педагогічного й інфраструктурного розвитку системи адаптаційної підготовки іноземних студентів був розроблений метод хронологічних координат. Виділено етап, з якого необхідно починати дослідження історії системи супроводу іноземних студентів, а саме період 1911–1920-х рр., позначений як організаційно-установчий. Виявлено, що етап характеризується виникненням первинних основ діяльності консультативного центру з підтримки іноземних студентів; створенням перших структурованих національних асоціацій іноземних студентів і прийняттям фундаментальних законодавчих ініціатив, що забезпечили підтримку розвитку системи супроводу. Обґрунтовано, що процес структурування системи супроводу в США необхідно розглядати після 1919 року (визначеного автором як період діяхронічно-синхронічного єднання), коли був створений Інститут міжнародної освіти. Практичне значення дослідження полягає в тому, що вперше проведена систематизація історичного матеріалу та подання його як організаційно-установчого етапу. Представлені результати дослідження можуть бути практично застосовані у процесі підготовки лекційного матеріалу з історії соціальної роботи в США та світі; в рамках діяльності громадських і некомерційних організацій

Ключові слова: адаптація, консультативний центр, інтернаціоналізація освіти, консультування, акультурація, законодавче регулювання

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Psychological Aspects as the Components of Academic Mobility of Medical Workers

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Abstract. The relevance of the study is conditioned by the need for mastery of "professional mobility" and "reflection" by health professionals in terms of active scientific and technological development and rapid changes in the socio-cultural space. The purpose of the study is to determine the professional mobility of a specialist in the context of the peculiarities of the professional activity of a nurse and to create a methodology for its research. In the course of the study, methods of statistical and mathematical analysis, scientific modelling, as well as testing and generalisation of data were used to conduct an empirical experiment, the essence of which was to create and substantiate the method "Professional mobility of a nurse". The necessity of the professional mobility development of employees of medical institutions is substantiated. The key components of the study of professional mobility of nurses have been established. A method for studying professional mobility and reflection of healthcare workers in the form of a questionnaire "Professional mobility of nurses" has been developed. Statistical processing of the received data has been conducted and the statistical matrix of the specified technique is created. A sample normative scale for the questionnaire has been formed. The reliability of the questionnaire was determined due to the use of the Cronbach's alpha index. The coefficient of discrimination of the method "Professional mobility of nurses" was found. Prospects for further research are seen in the regular use of the developed questionnaire "Professional mobility of nurses" among healthcare workers to actively implement and develop professional mobility to ensure proper socioeconomic stability

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Keywords: mobility, medicine, worker, academism, structure

INTRODUCTION

The modernisation of the healthcare system, which primarily involves improving the quality of care for the population, requires a high level of professionalism of medical personnel, competent performance of professional manipulations, practical knowledge of modern technologies, the ability to develop professionalism throughout their working career [1]. The professional and personal development of a medical specialist is determined by the level of development of his professionally important traits, qualities, and abilities. This is a development that includes two interconnected parallel processes:

- professional and personal development of a specialist by a system of advanced training;
- personal and professional self-development, which is the formation of professional mobility, is determined by the

ability to make independent and non-standard decisions aimed at increasing the level of their professionalism, the ability to quickly master a new professional and social environment.

In the psychological dictionary, the concept of professional mobility is considered through the term "professional development". Notably that professionalisation, or "professional development", is defined as an integral continuous process of a professional's personality development, starting from the moment of choosing a profession, which lasts throughout the entire professional life of a person and ends when a person stops his professional activity. An important process of professionalisation can be considered the formation of a professional, the development of professionally important qualities, the transition

of a person to the next level of professionalism [2]. At the stage of professionalisation, the professional development of an individual begins to dominate over the personal and determine it, while during the academic study the ratio of personal and professional development acquires the character of dynamic unbalanced integrity [3]. Moreover, the ability for professional mobility is largely determined by the level of professional development of the individual. Professional development is often viewed as an integration of two processes: personality development in ontogenesis and personality professionalisation from the beginning of professional self-identification to the end of active work activity [4].

Speaking about career models, it is noted that today the importance of such a feature of a career as mobility is increasing, when not only jobs are changing, but also the professions themselves [5]. The professional mobility of a specialist, including a medical worker, includes three following components: professional competence, readiness for change, and personality activity [6]. Professional mobility is social in nature because it is applied only in social systems, and its success depends on the social environment where the personality of a professional specialist develops. Exploring the characteristic features of a specialist's mobility and noting that it is based on the activity of a conscious personality, it should be noted that many scientists, studying professional activity, believe that it is an indicator of the degree of individual's socialisation and is manifested not only in the adaptation of a personality to other professional conditions but also is aimed at changing them [7].

One of the tasks of modern scientific research is the development of a personnel policy in medicine, designed for the development of human resources as a long-term mobile process, full development of the personality when a career reflects the personal development of a professional specialist. In medicine, there should be not only the provision of assistance to the population but also the effective development of personnel. This process is very complex and contradictory, often accompanied by the loss of the previously formed part of human resources, while reproduction does not provide the necessary quantitative and qualitative characteristics of performance potential [8].

Consequently, some grounds make it possible to talk about the socially professional formation and development of a medical specialist, namely about the development of a professionally mobile type of personality. Therefore, *the purpose of the study* is to determine the professional mobility of a specialist in the context of the characteristics of the professional activity of nurses and to create a methodology for its research. To achieve the purpose, the following *objectives* were attained during the study:

1. Verification of the proposed theoretical approach to the definition of professional mobility of nurses.
2. Selection of methodological tools to provide the diagnostics of multifaceted psychological aspects of the personality and professional activities of nurses.

MATERIALS AND METHODS

To conduct an empirical study of the professional mobility of medical workers, the following components were highlighted:

1. *Motivational component*, which includes a system of motives, goals, needs for self-development, self-improvement, self-education, value system for self-actualisation in professional activity, the need to master effective ways of organising it, to improve professional education, the desire for effective career growth. It contributes to the development of interest in professional activity, to the acquisition of professionally significant knowledge, and creates psychological conditions that encourage a person to perform productive and creative duties and professional functions in the process of activity, to change the types or areas of activity in a dynamic professional space. The main determinant of the motivational component of the professional mobility of nurses is a humanistic worldview, innovation, focus on professional self-development and self-improvement.

2. *The adaptive component*, highlighted since the changes that occur in the modern world are characterised by continuity and unevenness and often negatively affect the professional activity of an individual. This determines the division of people into those who are highly resistant to change, but do not tend to adapt; those who are unable to adapt and cannot resist change; those who are capable of adaptation and change, but the speed of their adaptive processes is not sufficient; and those who are able to adapt and change quickly, are capable of quick learning, self-learning. This necessitates the development of specialists' resistance to changes and the ability to adapt based on self-study and training.

3. *The communicative-empathic component* includes the concept of the goal, motives, means, and stimuli of communication and empathy, the ability to clearly express thoughts, argue, convey information, organise and maintain a dialogue, use verbal and non-verbal means of transmitting the information. The communicative-empathic component characterises the ability of a professionally mobile specialist to realise the interaction between colleagues and patients, it presupposes the ability to provide support, constructively resolve a conflict situation. In the context of studying the professional mobility and readiness of nurses for professional communication, the communicative-empathic component reflects: the nurse's awareness of the complexity and versatility of professional communicative interaction; knowledge of the theory and technologies of effective interpersonal communication and empathy with different patients (according to gender, age, cultural characteristics, religious worldview) and the ability to analyse dialogical relationships with patients; a complex of knowledge about interpersonal tolerance and the limits of its admissibility, human rights, various mental states of the individual.

4. *The organisational component* ensures consistency in the professional activity of a nurse, which makes it possible to predict the results of work, organise the implementation

of decisions, and correct interaction with patients and colleagues. This component includes the ability to organise, structure, rationalise professional activities in the professional sphere, the ability to analyse, design, and predict the results and consequences of actions aimed at solving specific professional tasks and achieving the goals of the professional plan; the ability to organise the activities of the team and patients in the department; the ability to critically evaluate the options proposed by management and substantiate suggestions for their improvement, taking into account performance criteria and possible consequences at nursing conferences. It provides for practicality (the ability to directly, quickly, and flexibly apply one's knowledge and experience in solving practical problems), observation, self-control, sociability, perseverance, activity, efficiency, organisation.

5. *The cognitive and competency-based component* involves the actualisation of cognitive processes in professional activity – perception, memory, attention, thinking, imagination, the ability to explore, systematically describe, and explain the problems as a specialist faces from the standpoint of modern science, ensures the use of modern knowledge for the effective development and implementation of the creative potential of a specialist in professional activities. This component includes professional literacy, professional skills and experience, life experience. The importance of the cognitive and competency-based component for the development of professional mobility of a nurse arises from the level of professional training, emotional and value-based perception of the essence of professional activity in nursing. The cognitive and competency-based component combines the body of knowledge of nurses about the essence and specifics of work. The completeness of this component is the result of the active professional activity of specialists. It is characterised by the volume of knowledge (width, depth, consistency), thinking style, theoretical competencies to perform certain practical professional actions, the development of the necessary skills and abilities for the work of a nurse. Under the cognitive and competency-based component of the professional mobility of nurses, the authors of this study consider the combination of knowledge and skills that reveal the essence and specifics of professional activity and concern the main components of the professional activity of nurses to work in their specialisation.

Based on these components, an empirical study was conducted, the essence of which was to adapt the author's methodology "Professional mobility of a nurse" and check its validity, reliability and appropriateness of use. The experiment involved nurses from the intensive care, cardiology, neurology, and urgent surgery units. The total selection of the empirical study consisted of 140 people aged 20 to 52 who took part in the pilot and main studies, 50 of which were participants in the test study of the pilot stage. The representative selection was constructed in such a way as to reflect the professional activities of nurses in stressful

conditions since it is among this contingent of nurses that it is advisable to diagnose the phenomenon of professional mobility. When forming the selection, the requirements for its content were met by choosing a selection, which corresponds to the subject of the study. The nurses studied showed a willingness to cooperate. It should be noted that there is a high level of motivation for introspection.

The study was conducted during 2016-2019 and consisted of the pilot and the main stage. *At the first stage* of the research, based on a preliminary acquaintance with the problem and the results of its preliminary study, the main attention was focused on choosing the direction of research, developing purposes and objectives, determining the object, subject, and research methods, and choosing possible sources of information. *During the main stage*, to determine the content of the structure of professional mobility of nurses, instructions for respondents were developed and clarified, an empirical research programme, which covers the methods, the studied components, and components of professional mobility was developed. *At the final stage* of the study, a mathematical and statistical analysis of the obtained empirical data, their structuring, generalisation, and systematisation was carried out; the data obtained during the empirical study were processed according to standard programmes of mathematical statistics. After the diagnostic testing, the output results were calculated, based on which the representatives of the studied contingent of nurses were analysed. Based on the primary processing of the results of the psychological examination of nurses, analytical tables and data matrices were compiled. The obtained data were further subjected to statistical analysis methods. Statistical processing of the obtained data was carried out using the nonparametric Pearson χ^2 test to identify statistically significant differences in the distribution of indicators for determining professional mobility in a selection of nurses working in a stressful hospital environment; Student's t-test for checking statistical differences in method indicators (significance level $p \leq 0.05$); factor analysis to identify latent variable factors responsible for the presence of correlations between the studied phenomena and cluster analysis to divide a set of objects into homogeneous groups (clusters) according to certain formal criteria of similarity. For mathematical and statistical processing at the primary and secondary levels, specialised software packages for statistical calculations were used, such as Microsoft Office Excel 2019, SPSS, which ensured the implementation of generally accepted univariate statistics and multivariate mathematical statistical methods. Subsequently, a psychological interpretation of the results was realised, conclusions were drawn about the informativeness of the chosen approach to the study of the reflexive mechanisms of professional mobility of nurses, and prospects for further studies of this kind were outlined.

The programme for studying the professional mobility of nurses, developed on a systemic integrated basis, the use of a number of methods and psychodiagnostic

research methods, the clarity of planning and the specification of stages of the study, give the right to assert that the results are likely in the study of the professional mobility of nurses. It should also be mentioned that the given psychodiagnostic techniques have the advantage of having a rather long history of application in the study of professionally important qualities of various categories of specialists, which is convincing evidence of their relevance and reliability.

RESULTS AND DISCUSSION

Today, the importance of nursing is growing all over the world. A highly qualified nurse must have sufficient knowledge, skills, and confidence to plan, implement, evaluate care, i.e., to be professionally mobile [9]. The importance of the study of professional mobility lies in the fact that there is an active development of the legislative framework in the field of nursing and it is necessary to accelerate the adaptation of the domestic regulatory framework to world standards due to the introduction of medical reform. There is every reason to classify the nursing profession as one of the most mentally stressful. Work in the medical industry involves constant communication with people, and a significant degree of responsibility in caring for patients, carrying out procedures, working with medical supplies, especially if it is work in busy departments of an in-patient hospital with seriously ill patients. Therefore, the logic of investigating the professional mobility of an individual on the example of the study of the professional activity of nurses working in stressful conditions is warranted [10].

Professional mobility as a personality trait of a specialist in the medical field includes the following components: a set of competencies that ensure the professional mobility of a mid-level medical worker, including key competencies: health preservation, social interaction, communication, information technology competence, and general professional competencies: executive, organisational, projective, clinical interaction; readiness to change as a synthesis of resistance and "reactive" adaptation; activity as the ability to transform professional activity and oneself in it [11]. According to this, several important components are distinguished in the concept of "professional mobility of a nurse". The first is connected with the readiness of a nurse for professional activity, which is reflected in the professional competency of a specialist [12]. To be mobile, a nurse must be able to adapt to new conditions: medical, social and medical institutions, government bodies, be able to use innovative technologies and equipment in professional activities – this is determined by their adaptability. A mobile nurse should not only be able to adapt to new conditions, but also be responsible for making certain decisions independently; this reflects responsibility as a personal quality of a specialist. Finally, to be mobile, a nurse needs to constantly improve, self-develop, and realise herself both in her professional activity and the professional team [13].

A medical worker, to psychologically meet the modern requirements of life and profession, must improve intellectually, morally, communicatively, and emotionally. Such improvement is within the power of a person whose

personal changes are directed and mediated by psychological means, for example, reflexive mechanisms [14]. In this regard, the study of professional reflection in a healthcare specialist is of particular relevance, because the psychological ways of mastering the medical profession have been studied in less detail compared to other professions. Meanwhile, medical practice is inherently reflective. The high social significance of the activity of a medical worker determines high requirements for his professional level, which also increases attention to the problem of reflection of professional activity because one of the functions of reflection is to ensure a conscious attitude of the subject to the activity [15].

In the modern professional world, a mid-level medical worker needs reflexive skills that have a positive effect on his activities and the activities of the team [16]:

- to draw up and agree on plans for the activities of the team;
- to compose and implement the nursing process;
- to develop and implement a professional self-education programme;
- to analyse professional problems and find ways of their constructive solution;
- to search for ways to achieve the set goals and objectives;
- to implement reflexive management of the nursing staff;
- to conduct self-presentation;
- to carry out emotional and volitional self-regulation.

The study of the reflection of the specialists' professional activity made it possible to single out the unconscious and conscious levels of the professional development of the individual. The unconscious level is characterised by unconsciousness, the indistinctness of the personality's ideas about their own potential capabilities, the dependence of professionalisation on external circumstances and influences, lack of reflection on professional development and personal responsibility for its course and results. A conscious professional attitude is accompanied by formed professional motivation, active and creative actions and deeds, subjective search, and extraction of personal meanings in professional activity, which in general ensures professional maturity [17].

Various approaches to the study of reflection are due to the differences in the views of psychologists in the definition of the term "reflexive mechanisms". Thus, in the mental sphere, two complementary reflexive mechanisms are distinguished: generation and control; in the sphere of consciousness – self-mobilisation and self-organisation; in the field of communication and cooperation – "reflexive immersion in the environment", the attitude towards cooperation, the openness of one's own experience for others and vice versa [18]. Reflexive activity is understood as a condition for self-development, an indicator of personal and professional values and meanings, reflecting the individual experience of studying the content of the professional sphere and a system of methods of introspection, self-prediction, self-control, self-assessment, and freedom of choice of means of achieving results. The main mechanisms of reflexive activity include the mechanism of cognition and the mechanism of development; fixation, problematisation, self-determination, self-esteem, motivation;

self-knowledge, self-determination, introspection, self-programming. Reflection in the profession should be considered as the focus of reflective thinking on the objects of professional activity, which are the development of professional qualities. According to the personal paradigm, professional reflection is considered as one of the methods of self-knowledge and self-improvement, as an integral component. In the professional activity of a medical worker, reflection is not only a means but also a goal of training, not only a process of self-knowledge but also a content, a source of personal experience, a factor in the actualisation of the development of professional culture [19].

Among the personal qualities and traits that form the ability and readiness for professional mobility of nurses, the following are dominating: initiative; professional activity; ability to take risks; self-organisation, independence, volitional self-control; persistence; the ability to hold feelings and emotions; independence of decision-making in difficult situations; decisiveness in determining the basic issues of life and professional sphere of activity; self-confidence; initiative; resistance to frustrations of the internal and external environment.

Thus, the transformational changes taking place in the state increasingly pose a challenge for scientists not only to develop new approaches in medical practice but also to provide specific proposals. In this case, the combination of the term "reflection" with the term "professional mobility" made it possible not only to make scientific research on a relevant and modern scientific topic but also to propose a strategy, a model for the development of professionalism of personnel in the field of medicine, which is based on the use of systemic and structural methodology, specifically – on a fundamentally new structure of professional staff mobility [20].

Based on the theoretical analysis of the professional mobility of nurses, it is worth noting that in modern psychodiagnostics no methodology is aimed at studying this particular phenomenon. Therefore, the problem of creating a psychological toolkit, aimed at a comprehensive examination of the named phenomenon arose, which provides an opportunity to measure the level of professional mobility of a nurse. The essence of the developed methodology consisted in the choice of the studied phenomenon, that is,

the phenomenon of professional mobility of nurses working in stressful conditions, the definition of this methodology as a subjective type of tests and the choice of the type of tasks with the proposed answers, the selection of the primary form of tasks by the criterion-key principle, assessment of tasks of a primary test form, conducting preliminary testing, developing an empirical data form, determining the validity, reliability, and discrimination of the test, as well as standardising the questionnaire. The methodology consists of 15 questions and determines the level of development of professional mobility among nurses.

Before the study, the questionnaire passed an expert assessment on the following indicators:

- compliance with the concept (corresponds, partially corresponds, does not correspond);
- unambiguity of formulation of questions (unambiguous, not entirely unambiguous, not unambiguous);
- suitability of answer options (suitable, partially suitable, not suitable).

Qualified specialists with high professional qualities, including the availability of special training, competence, and work experience, were involved as experts. As a result of the expert assessment in the secondary version of the methodology, the content of some questions was improved and the answers to the questions were built on a Likert scale (from -2 to +2). The selection of standardisation of the methodology "Professional mobility of a nurse" was 140 people (N=140), 50 of which became respondents to the test study after 20 weeks.

Each participant of the study was supposed to have a specific instruction: "Please rate Your expressions of the signs of professional mobility of a nurse by checking the box next to the appropriate option, on a scale from -2 to 2, where:

- -2 – the sign is not expressed;
- -1 – more not expressed than expressed;
- 0 – difficult to assess;
- 1 – more expressed than not expressed;
- 2 – the sign is expressed".

Statistical processing carried out using the statistical packages Statistica 6.0 and SPSS for Windows made it possible to formulate the results, which were later displayed in the statistical matrix of the methodology (Table 1).

Table 1. Statistical matrix of the methodology "Professional mobility of a nurse"

	N	Arithmetic mean	Median	Min	Max	Standard deviation	Dispersion
Level of professional mobility	140	55.54	56.5	23	75	9.832	96.667

Having received the results of the statistical matrix of the methodology, the authors of the study constructed a sample normative scale for the questionnaire. When divided into three levels of professional mobility, the limit values of the norm for the low-level indicator are 15-34 points, for

the average level indicator – 35-54 points, for the high-level indicator – 55 points or more. To check the normality of distribution, a visual assessment of the histogram was used. The results are shown in Figure 1.

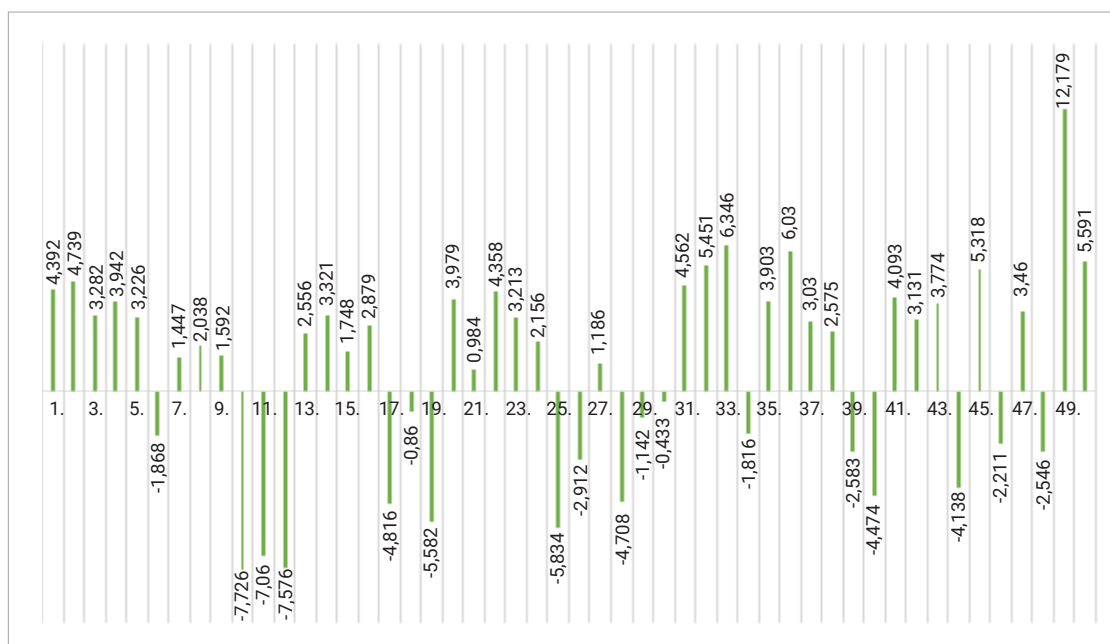


Figure 1. Normal distribution of data according to the methodology “Professional mobility of a nurse”

Speaking about the optimal complexity of problems, it is necessary to point out that the difficulty of test items is such a characteristic, that reflects its statistical level of possibility of solving. Testing the complexity of the questions showed that this test consists of problems with the optimal level of difficulty. This is evidenced by the fact that all the surveyed nurses scored at least 50% of the maximum possible number of points. In the process of adapting the methodology, it was found that all the subjects cope with each of the tasks, so all 15 questions were recognised as successful and left in the test.

Test reliability is a means of determining the reliability of a psychodiagnostic methodology, in which indicators of the accuracy and stability of the results are determined by repeated research. Reliability, in this case, is established as a measure of the coincidence of the results of the first and repeated surveys, or as the degree of preservation of rank places surveyed in the test sample. The coefficient of reliability r is equal to the coefficient of correlation between the data of such surveys. If a quantitative interval scale is used to measure the psychological property in the test under study, then the Pearson correlation coefficient can be used in determining the results.

The test reliability of the methodology was determined by the repeated questionnaire of the subjects 20 weeks after the first questionnaire. Retesting was

conducted for a selection of 50 people. The correlation between the results of the first and second tests was at the level of $r = 0.8665$, which indicates fairly high test reliability of the questionnaire.

The process of determining the reliability of the questionnaire consisted of several stages. The first step in processing the resulting raw data was to check the internal consistency of the questionnaire. For this, the statistical Cronbach's alpha index was calculated, which shows the internal consistency of characteristics describing one object. Cronbach's alpha will increase as the cross-correlations of the variables increase; therefore, it is considered a marker of internal consistency in assessing the reliability of test results. Cronbach's alpha indicates the degree to which all items measure the same feature, this coefficient is most appropriate to use when all items are aimed at measuring the same phenomenon. A high coefficient value indicates that the set of questions has a common basis. The value of Cronbach's alpha for the level of professional mobility for 15 questions was $\alpha = 0.903$, which is slightly higher than the minimum acceptable value, which is $\alpha = 0.7$. Therefore, it can be argued that all items have high differential strength and should not be excluded from the final version of the questionnaire. The results of checking the reliability of the methodology “Professional mobility of a nurse” are presented in Table 2.

Table 2. Statistics of methodology statements “Professional mobility of a nurse”

Methodology statement	Average number	Mean standard deviation	N
12. Psychological comfort	4.02	0.901	140
3. Fast decision-making	3.93	0.964	140
1. Organisation of the working day	3.84	0.972	140
8. Ability to endure heavy physical activity	3.84	0.916	140
2. Self-control	3.83	1.017	140
15. Active participation in conferences	3.81	1.031	140

Table 2, Continued

Methodology statement	Average number	Mean standard deviation	N
11. Self-reliance in providing assistance	3.72	0.997	140
14. Delivering moral and psychological care to patients	3.68	1.020	140
10. Ability to perform several types of activities at the same time	3.68	0.850	140
9. Ability to stay focused on several patients	3.64	0.975	140
4. Proper care	3.55	1.108	140
6. Manual dexterity	3.55	1.146	140
13. High performance under stressful conditions	3.54	0.940	140
7. Control over the sanitary and hygienic state	3.54	1.020	140
5. Mastering new technologies	3.38	1.190	140

The constructive validity of the developed methodology was determined based on correlations with the indicators of the methodology "Diagnostics of the motivational structure of personality" (scales of "general activity", "creative activity"), methodology "style of self-regulation of behaviour-98" (scales of "planning", "flexibility", "independence", "general level of self-regulation"), and a questionnaire of professional self-development (scale "self-government in the profession").

Based on the analysis, it can be concluded that the data obtained provide information on the presence of high positive correlations of professional mobility indicator of a nurse with the following variables: on the scale of "general activity" ($r = 0.412$) at $p < 0.000$; on the scale of "creative

activity" ($r = 0.354$) at $p < 0.001$; on the "planning" scale ($r = 0.204$) at $p < 0.006$; with the scale "flexibility" ($r = 0.364$) at $p < 0.001$; on the scale of "independence" ($r = 0.345$) at $p < 0.002$; with the scale "general level of self-regulation" ($r = 0.403$) at $p < 0.007$; with a scale of "self-management in the profession" ($r = 0.233$) at $p < 0.001$.

Additionally, a procedure for checking the discrimination of the questionnaire tasks was carried out, that is, the ability of individual tasks of the methodology to distinguish between subjects with high or low test results, as well as subjects with high productivity of professional activity from those for where it is low, where the main indicator of the coefficient was calculated separately for each statement (Table 3).

Table 3. Indicators of the coefficient of discrimination of the methodology "Professional mobility of a nurse"

Methodology statement	Correlation coefficient	N
8. Ability to endure heavy physical activity	0,72	140
6. Manual dexterity	0,70	140
15. Active participation in conferences	0,67	140
3. Fast decision-making	0,64	140
4. Proper care	0,63	140
13. High performance under stressful conditions	0,60	140
2. Self-control	0,58	140
14. Delivering moral and psychological care to patients	0,57	140
5. Mastering new technologies	0,55	140
7. Control over the sanitary and hygienic state	0,55	140
1. Organisation of the working day	0,54	140
10. Ability to perform several types of activities at the same time	0,53	140
9. Ability to stay focused on several patients	0,52	140
11. Self-reliance in providing assistance	0,50	140
12. Psychological comfort	0,50	140

As can be seen from the results presented in Table 3, the correlation coefficients of all test questions indicate its high discrimination. Consequently, the indicators of discrimination allow us to say that each specific item on the test reliably distributes the subjects with high and low scores. The final version of the methodology "Professional mobility of a nurse" consists of 15 questions and diagnoses

the level of professional mobility of a nurse.

The standard testing procedure provides four options for answers, which are rated on the following scale: "-2" – 1 point; "-1" – 2 points; "0" – 3 points; "1" – 4 points; "2" – 5 points. The maximum score on the methodology is 75 points. The limit values of the norm for the indicator of the level of professional mobility of a nurse are:

- low level – 15-34 points;
- average level – 35-54 points;
- high level – 55 points or more.

The low level of professional mobility indicates that it is difficult for these workers to adapt to changes in the professional sphere, they find it difficult to solve professional tasks of a complex level, it is difficult for them to develop and improve themselves. The average level of professional mobility of nurses means that such individuals adapt to various changes in the professional sphere with some difficulties, effectively solve professional problems only of their qualification level, are capable of professional self-development and self-improvement. The high level of professional mobility of nurses allows an individual to quickly adapt to various changes in the professional sphere, unconventionally think and act, effectively solve professional problems of different levels, and be capable of professional self-development and self-improvement.

CONCLUSIONS

Thus, the professional mobility of nurses is an external manifestation of the internal properties and processes of

the personality, aimed at finding a place in the system of professional relations and the successful implementation of the needs in professional advancement. Accordingly, in the structure of professional mobility of nurses, it is expedient to highlight personal and activity components. The personal component of professional mobility determines the qualitative characteristics of a specialist according to the content of professional mobility (motivation, adaptation, and communication), the activity component represents the components of professional mobility, manifesting behavioural structures that are reflected in the professional activity of a professionally mobile specialist (cognition, organisation, competency).

The study examined the professional mobility of specialists in the field of medicine in the unity of the main components such as motivational, adaptive, communicative-empathic, organisational, and cognitive and competency-based. Based on these components, an empirical study was conducted, the essence of which was to create a questionnaire to determine the professional mobility of nurses, thereby the results were obtained and systematised, confirming a sufficiently high level of mobility in healthcare workers.

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Психологічні аспекти як складові академічної мобільності медичних працівників

Анотація. Актуальність дослідження визначається необхідністю володіння «професійною мобільністю» та «рефлексією» спеціалістами в сфері охорони здоров'я в умовах активного науково-технічного розвитку та стрімких змін в соціокультурному просторі. Метою роботи є визначення професійної мобільності спеціаліста в контексті особливостей професійної діяльності медичної сестри та створення методики для її дослідження. У ході дослідження для проведення емпіричного експерименту, суть якого полягала у створенні та обґрунтуванні методики «Професійна мобільність медичної сестри», були використані методи статистичного та математичного аналізу, метод наукового моделювання, а також тестування та узагальнення даних. Обґрунтовано необхідність розвитку професійної мобільності у працівників медичних закладів. Сформовано ключові компоненти дослідження професійної мобільності медичних сестер. Розроблено методику дослідження професійної мобільності та рефлексії працівників сфери охорони здоров'я у вигляді опитувальника «Професійна мобільність медичних сестер». Проведено статистичну обробку отриманих даних та створено статистичну матрицю вказаної методики. Сформована вибіркова нормативна шкала для опитувальника. Визначено надійність використання опитувальника завдяки застосуванню показника альфа Кронбаха. З'ясовано коефіцієнт дискримінантності методики «Професійна мобільність медичних сестер». Перспективи подальших досліджень вбачаються у регулярному застосуванні розробленого опитувальника «Професійна мобільність медичних сестер» серед працівників сфери медичного обслуговування з метою активного впровадження та розвитку професійної мобільності задля забезпечення належної соціально-економічної стабільності

Ключові слова: професійна мобільність, медицина, працівник, структура, опитувальник

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The Role of Moodle Software among Medical Students During Distance Learning

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Abstract. The study of the role of Moodle software among medical students is relevant, as distance learning is now new in terms of learning, processing, and teaching educational material online. The representation of new (latest) informative data using Moodle during distance learning contributes to and increases the level of students' knowledge. Moodle software is a valuable resource that presents an archive of educational (scientific) materials to students and teachers with unlimited access. The study is aimed at determining the role of Moodle for medical students during distance learning based on a theoretical review of the literature. Three stages of methodological justification were proposed as the basis for this study. At the first stage of the study, Moodle software was characterised; during the second – the role of distance learning was defined; third – the quality of medical students' training during distance learning through the use of innovative technologies, namely Moodle, was assessed. The study substantiates the significant role of Moodle and distance learning: understanding the goals of learning, gaining a significant "baggage" of knowledge, the latest information and access to resources, self-learning, self-improvement, and development of a "doctor" personality. The expediency of using the software among medical students is proved, taking into account the structure, logic, constant updating of materials, direct assessment of the student using test tasks and practical classes. Using Moodle software during distance learning, a medical student independently and consciously focuses on pathology based on the acquired knowledge, clearly and reasonably makes a preliminary conclusion (diagnosis) with subsequent appropriate treatment. The combined use of Moodle software and highly qualified teachers improve the quality of education and guide the medical student to focus on the study material and improve one's practical skills with the presented materials and visual aids

Keywords: Moodle, distance education, educational material, distance learning, video lectures, modernisation

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INTRODUCTION

Moodle (an acronym for *Modular Object-Oriented Dynamic Learning Environment*) is a learning platform designed to unite teachers and students into one reliable [1], safe and integrated system for creating a personalised learning environment [2]. It provides students and teachers with a joint study of the proposed educational material, which is easy and accessible to use [3].

An analysis of recent research has shown that Moodle is the most advanced and widespread system for this purpose in Ukraine and the world. According to I.V. Stavytska, "The Moodle system has become quite popular in the world among

teachers as a tool for creating dynamic courses for students. Moodle is available as open-source software. Anyone can adapt, extend or modify Moodle for commercial and non-commercial projects without any license fees" [4]. According to I.V. Stavytska, the scientist O.A. Shcherbin has repeatedly studied the Moodle system in his works. The author described the national strategy for the development of education in Ukraine for 2012-2021, proposed by the Ministry of Education and Science, which provided for the modernisation of the structure of education based on a competency approach, full implementation, and use

of appropriate assessment system [5]. The essence of designing a Moodle-oriented virtual learning environment as a means of training specialists of socioeconomic professions was revealed by I.V. Lovyanova and co-authors. The dialogic interaction of the student of medical specialisation and the teacher, knowledge of various technologies, techniques, methods which solve problems of various levels of interaction in society were revealed. The results have shown that Moodle is one of the software systems that make it easier for students to solve a scientific problem through “cognitive curiosity”, skills and abilities, to make hypotheses based on the acquired knowledge, and make the correct conclusion (diagnosis), etc. [6].

Many Ukrainian scientists, including K.R. Kolos [7], T.Y. Priymak, and O.O. Petrushka [8], assessed the role of Moodle system software, its positive and negative sides, and revealed its importance in various social (professional) areas. In addition to Ukrainian, foreign scientists have also considered this issue. S. Limongeli, M. Lombardi, A. Marani, F. Siarone, M. Temperini have repeatedly highlighted the role of the Moodle system in distance learning and developed recommendations to help teachers create any courses [9]. I. Mwalumbwe, J.S. Mtebe studied the basics of this study to predict the “progress” of students in this system. The authors reveal the essence of the Moodle programme and show the results of the study, that clearly outline the advantages and disadvantage of this system and its impact on student's performance [10]. However, not only the Moodle system has an impact on medical student's development but also styles of teaching. M.A. Abdullah began to develop this issue and explained the importance of Felder-Silverman's learning style models and their connection to students' learning.

Distance education is an organised learning activity where students, teachers, and learning materials from many sources come together through communication technologies. Distance education can be carried out in different forms, environments, educational institutions, at different educational levels and ages, using different technologies, teaching methods, approaches based on different philosophical and strategic concepts with one or more teachers [12].

The purpose of this study is to assess the role of Moodle software among medical students during distance learning based on a theoretical review of the literature. The following *objectives* have been set: to determine the advantages and disadvantages of the Moodle system, to assess distance learning and its impact on the quality of medical student's education.

METHODOLOGY

To meet the set purpose and objectives, several stages of analysis of the assessment of the studied material were proposed. The first stage of the study lies in the essence of distance learning, because it enables constant acquisition of knowledge without violating the programme plan of the medical student and the teacher. Such learning develops self-education and self-improvement of each student. At this stage of the study, the ways of presenting visual material remotely and addressing deficiencies of distance learning in

practical medical classes, which require a direct relationship “patient-doctor (student)” during the consideration of topics are highlighted. The issue is important because “live communication” between medical students and patients, and discussion, clarification of unclear issues with the teacher is mandatory in understanding the practical medical material and formulating the correct conclusion (diagnosis).

The second stage of the theoretical review provides an assessment of the Moodle software as one of the available systems among medical students during distance learning. It is known that the Moodle system makes it possible to quickly and easily provide access to educational (scientific) materials without leaving the “comfort zone”. It creates a “virtual” audience with students and teachers, which will allow them to independently implement their knowledge. According to the analysis of the literature, the essence of the software, its ways of content maintenance, selection of methods of presentation of educational (scientific) material, analysis of the presented material, and ways of assessment in this system are revealed.

The third stage includes assessing the quality of teaching medical students during distance learning through the use of innovative technologies, namely Moodle. A characteristic feature of the quality of medical students' education is the acquisition of the topics proposed by the working annual programme and their orienting in the diagnosis of diseases. The students' perception of scientific (educational) material, its correct presentation, and understanding of the disease will help students to clearly express their opinion on the correct conclusion (diagnosis). This issue is relevant because distance learning is now new in terms of learning, processing, and teaching educational material online. Teachers are not always able to comprehensively present and explain the subject to students, especially when it comes to the medical profile, as it is based on conventional face-to-face teaching and constantly “gaining” knowledge in practice, which is the basis in the medical field.

The object of the study is the characteristic of the students' condition, according to the literature data. The subject of the research is Moodle software, an assessment of the impact of distance learning on the quality of education of medical students.

It is rational that the application of the proposed subject of assessment will help to better understand the impact of innovative technologies and educational development of students. Assessments of literature data, both Ukrainian and foreign, will make it possible to identify the deficiencies in the use of Moodle software that are constantly encountered by both students and teachers during distance learning and to find the right approach to address them.

RESULTS AND DISCUSSION

Distance learning is a form of learning through video meetings of students and teachers, which makes it possible to increase one's scientific and professional level while still learning (working). During distance learning, a student is

a person who independently studies the presented educational material in the approved work programme of the higher education institution, and in this case, the teacher provides educational visuals and, if possible, maximum

explanation on lectures. This type of education directs the teacher to search and use new teaching aids according to the presented requirements of the educational process (Fig. 1).

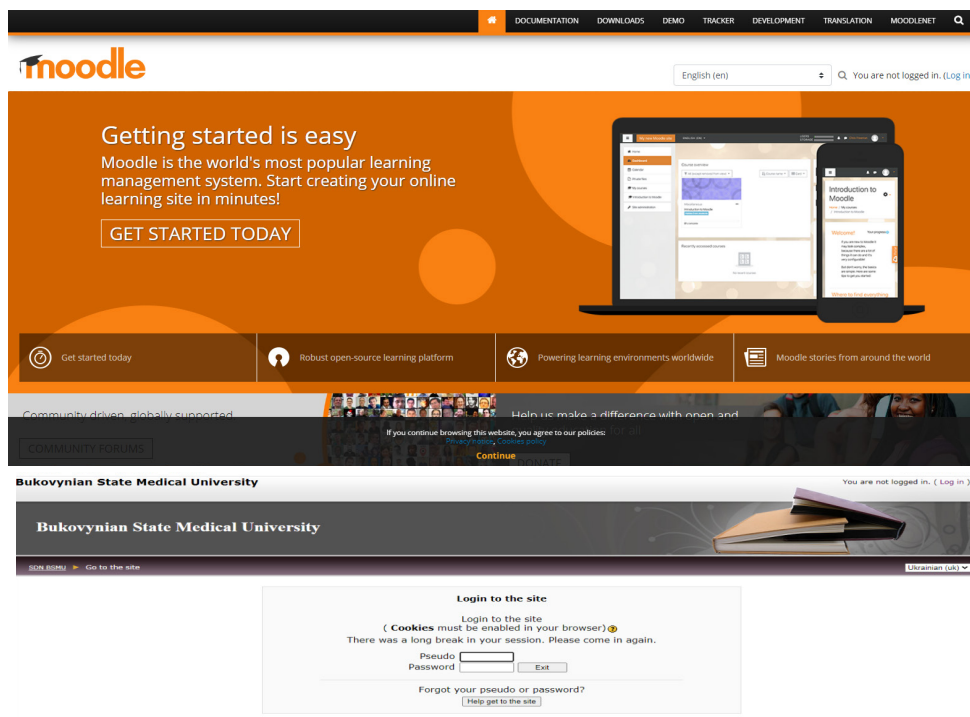


Figure 1. Learning platform “Moodle” for distance learning

The advantages of distance learning are: accessibility, informativeness, “flexibility in learning”, convenience in choosing the time of the study, unlimited communication among different segments of the population and nationality in the common direction of learning material [11], the ability to constantly receive new (last 5 years) cross-border learning materials and “time saving” (no waste of time traveling and searching for study material in libraries and medical sites on the Internet), the use of large amounts of information among previously created student groups by educational institutions according to specialisations and faculties [13].

The effectiveness of such an educational process depends on the control of learning material, analysis of the priorities of factors influencing the presentation of material by teachers, and the work of students during distance learning. Quality control of the acquired knowledge is tested on a lecture, which helps to identify unfinished “areas” of presentation of educational material, as well as to improve the “gap zone” (to understand the material better) before the lecture is over. Distance learning itself assesses the student objectively and has greater limits of assessment than other forms of learning. Another advantage of distance learning is the variety of student assessments and encouraging him to search for the presented issues in the additional educational literature, which allows the student to expand one’s horizons, learn and improve unassisted. There are many advantages of distance learning, which allows emphasising its significant role in the learning process and self-development.

However, given that the use of distance learning is based on the ability to use different software technologies, not every experienced teacher can use them. The ability to

use innovative technologies and the correct presentation of visual materials to students is the key to the successful encouragement of students to learn. Among the disadvantages that may appear during the presentation of educational material, it is also worth highlighting the technical problems: the lack of Internet access in case of failure on the line; the impact of weather conditions that reduce the speed of the Internet resource with poor quality playback of audio and video materials during distance learning; lack of power supply, which is necessary for distance learning. However, the described deficiencies are temporary and do not have a pronounced negative impact on the quality of teaching and education.

In the process of teaching, the latest technologies are constantly evolving, which require their understanding and ability to use them. One of the innovative technologies in Ukraine is the Moodle software, which has become an indispensable assistant for teachers in explaining the material and assessing students. What is the function of Moodle? What are the advantages and disadvantages of this software? These are some questions that constantly arise in teachers. After all, the teacher has the direct and greatest interaction in working with the system.

This programme has a wide range of functionalities – independent training of students, their learning and assessment during distance learning, the creation of additional courses for students, and their acquisition of theoretical skills during the study. The Moodle system allows teachers to create effective sites for online learning, which are used in both student learning and advanced training of the teacher [14] (Fig. 2).

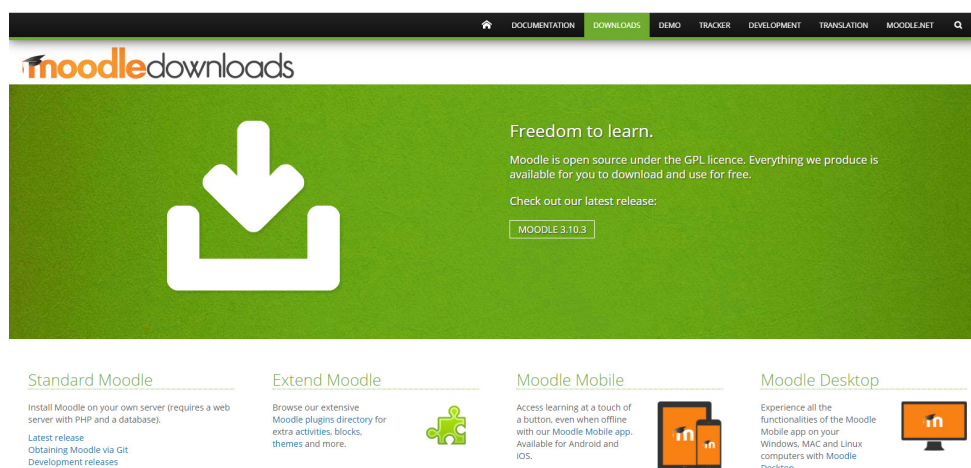


Figure 2. Methods of uploading educational materials to the educational platform

The study of therapeutical topics in accordance with the learning programmes throughout the year with the help of a system of innovative technologies (Moodle) and distance learning allows teachers to cover and present this section as much as possible. Knowing that each disease has its own period of progression (seasonality), typical and atypical clinical course, the teacher with the help of videos uploaded to the Moodle programme, can emphasise the issues that arose during the analysis of the topic at any time. This indicates the availability of educational material for teacher, student, and any other person. Availability is one of the benefits of the software.

The next advantage is “richness” and constant updating with educational (scientific) material. With the help of Moodle software, Bukovynian State Medical University has created various discussion forums, uploaded documents (or links to sites) with video and audio materials, textbooks of recent years, which describe new clinical classifications of diseases, modern research methods for the treatment of pathology. The teaching material is uploaded by the teacher constantly during the update of the literature (manuals, scientific papers), which “saves time” for each teacher in terms of preparation for the subject (Fig. 3).

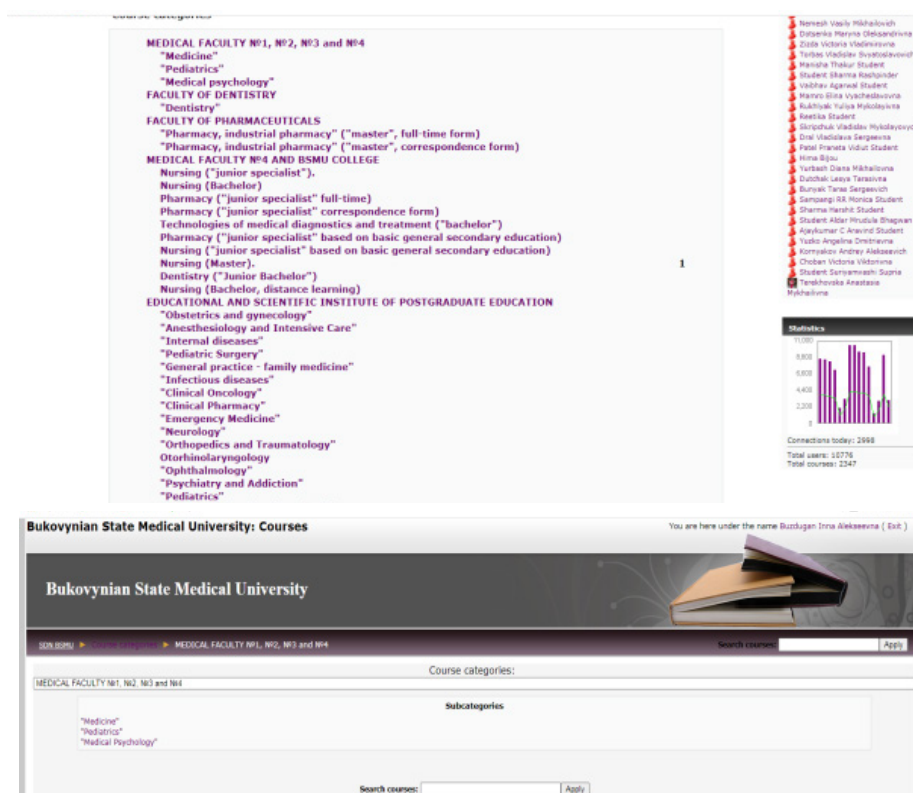


Figure 3. The educational platform of the medical educational institution of the IV level of accreditation

Each teacher can post their own previously saved and edited photos, pathogenetic diagrams, diagnostics and treatment on Moodle, which he received as a result of practice

and experience. These materials have educational content and contain a visual image of the disease, its clinical manifestations with practical skills for students (percussion,

palpation, auscultation with changes that are characteristic of each disease), as well as diagnostic criteria, differential diagnosis.

Moodle makes it possible to logically and structurally distribute the downloaded material according to previously created units (groups, faculties, specialisations), which will help to quickly find educational material for both students and teachers.

An integral part of the training with the proposed software system is the created calendar with news and announcements of educational and scientific events, as well as medical leisure. Invitations to various types of medical conferences, webinars, seminars that will expand the horizons on the proposed medical topics (links to sites for self-improvement) can be found there. This creates an opportunity for each student to enrich the “baggage of knowledge” and assess the possible development and course of any pathology with its subsequent diagnostics.

Assessing each student with Moodle software is easy by solving tests and situational tasks. This type of

assessment is relevant and prioritised during distance learning. The advantages of Moodle described above and others (the ability to view the results of a distance course by a student; test results; the ability to communicate directly with the teacher; the ability to upload files with completed tasks and the ability to use reminders about events in the course), make it possible to evaluate Moodle as a significant component in education among teachers and students [15]. In addition to the positive features offered above, there are several equally important positive points in the Moodle software – the role of videos during the analysis of the topic. As is known, it is not always possible to clearly demonstrate the pathology under the topic of the lesson in medical institutions. It is the video and audio materials that are previously uploaded by the teacher and correspond to the specific topics of the lesson that will help the student to easily acquire and understand the educational material and orient in it well. Visual educational material is structured, concise and reflects the essence of the pathological process and the basis of its treatment (Fig. 4).

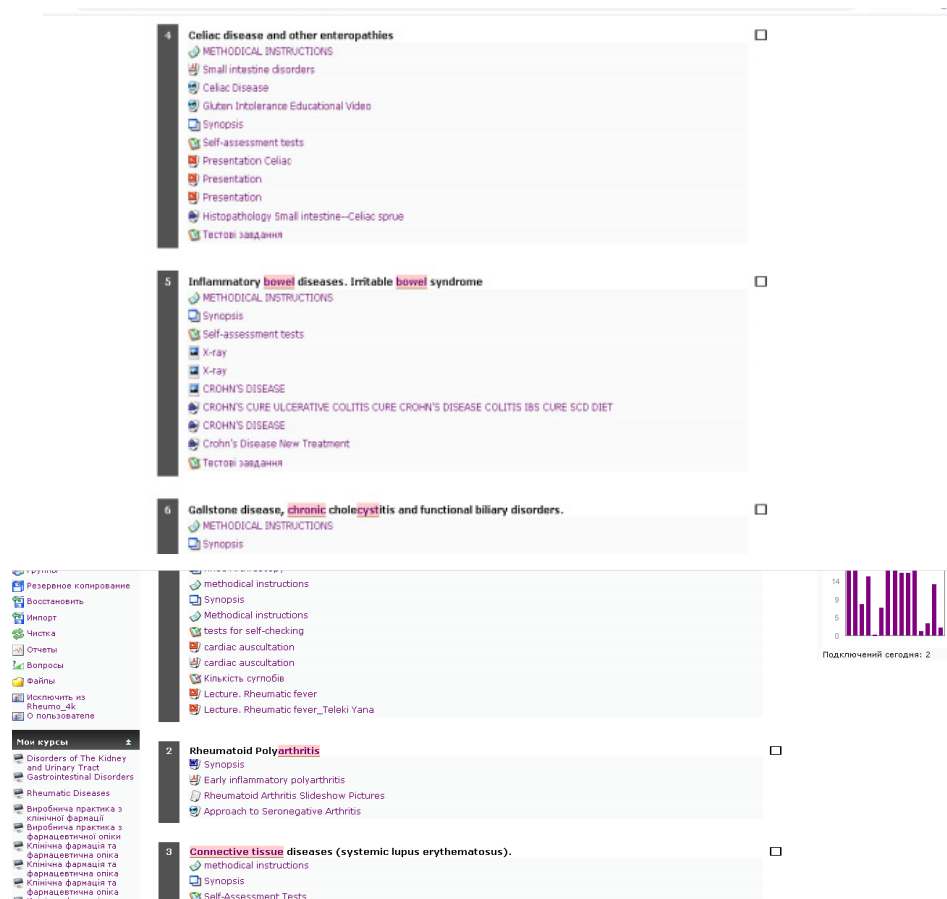


Figure 4. The educational platform of the medical educational institution of the IV level of accreditation

Google Drive and Google Calendar play an important role in distance learning using Moodle software. With Google Drive, both students and teachers can store all downloaded information from Moodle on a mobile device or PC. The calendar may also contain monthly information about the teacher's scheduled videoconferences with groups according to the curriculum. Due to the busy schedule, the function “Reminder” in Google Calendar will notify both

the teacher and the student of the start of a seminar or practical session during distance learning.

However, among the advantages, there are significant disadvantages that are important in medical universities. The main and biggest drawback is the lack of practice during distance learning because practice in the medical field is a significant “action” in the analysis of the material and its understanding. In doctors' work, they

constantly use practical skills in the form of percussion, palpation, auscultation, and “live” communication with the patient, which is essential in making a preliminary diagnosis and subsequent diagnostics (confirmation) and determining the main conclusion (diagnosis).

Experience has shown, Moodle software affects the quality of education by increasing the self-development, self-improvement, and outlook of each of the medical students, which confirms the important role of its use in educational institutions, including medical. Software is an integral part of distance learning. It is known that in 2013, in accordance with the recommendations of the Ministry of Education and Science of Ukraine, the use of distance learning in universities of III-IV levels of accreditation was approved. However, this issue has been considered since 2003 [13]. It was recognised that distance learning is a new organisation of education, which combines elements of full-time, part-time, and evening types of learning, based on the means of exchanging educational material at a distance and self-study [16].

According to the board of the Ministry of Education and Science of Ukraine, which was established in 2005, it was noted that distance learning will expand opportunities and create a single national educational and scientific [17], as well as information base of learning environment that will allow Ukraine to join European educational and scientific information resources and increase the horizons of each [18].

Using Moodle software during distance learning allows students to orient themselves in their learning. It is during distance learning that the student comprehends the importance of studying subjects, their implementation in their medical practice, the stimulus in the development of their own outlook, and goal setting in further career growth. This medical education affects not only the educational development, but also the psychological, forming the student's personal development not as a “student”, but as a “doctor”, “nurse”, etc. Personal development together with the presentation of education help the medical student to decide on the choice of future profession and make every effort to better understand this choice.

Assessing the literature on the quality of education during distance learning using Moodle software, it can be argued that teaching the material, presenting it in the proposed programme, accessibility and ease of learning technology among both teachers and students is necessary

to improve everyone's knowledge. The main advantages of this method are the richness and constant updating of educational material, access to them at any time, objective assessment of medical students during a seminar or practical lesson, presentation of visuals (practical materials) on medical topics according to the work programme, distance training without spending time on transport and without separation from the study (work). The disadvantages are insufficient technological support and technical failures of Internet suppliers. However, they are temporary with the possibility of their addressing. Such training broadens the horizons, allows self-improvement, self-development, to see and understand one's imperfections in the study of material and its presentation, understand the importance of knowledge, re-evaluate what is learned, and formulate correct conclusions. Distance learning and the Moodle system not only allow for self-development and self-learning but also assess opportunities and identify prospects for the future, which improves the quality of higher education.

CONCLUSIONS

The Moodle system in medical universities allows providing the maximum educational process during distance learning, to assess the readiness of students for the topic of the lesson, as well as to improve the presentation of educational visual materials. At the same time, medical students increase the level of understanding of the studied material and learning, the role of pathologies in the studied in the further analysis, the need for self-improvement, self-development, and opportunities of each student with further prospects.

The use of Moodle software among medical students makes it possible to quickly, efficiently, and promptly, without additional effort in finding material to prepare for a practical lesson, which improves the quality of the educational process by presenting constantly updating educational material of the past 5 years, and an individual approach to explaining the material to each of the students. However, the simultaneous use of the site by a large number of students leads to an overload of the system, which does not always allow for the timely processing of educational material or to taking testing with subsequent evaluation of the processed material. Therefore, the state of the Moodle system with a large number of users is one of the issues of further research.

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Роль програмного забезпечення Moodle серед студентів медичного спрямування під час дистанційного навчання

Анотація. Вивчення ролі програмного забезпечення Moodle серед студентів медичного спрямування є актуальним, оскільки дистанційне навчання нині є новим щодо засвоєння, опрацювання навчального матеріалу та його викладання у режимі онлайн. Репрезентація нових (новітніх) інформативних даних за допомогою програми Moodle під час дистанційного навчання сприяють і підвищують рівень знань студентів. Програмне забезпечення Moodle – цінний ресурс, що містить архів навчальних (наукових) матеріалів для представлення студентам і викладачам із необмеженим доступом. Мета дослідження полягала у визначенні ролі програмного забезпечення Moodle серед студентів медичного спрямування під час дистанційного навчання на підставі теоретичного огляду літератури. В основу поставленої мети було запропоновано три етапи методологічного обґрунтування. На першому етапі дослідження охарактеризовано програмне забезпечення Moodle; під час другого – визначено роль дистанційного навчання; третього – оцінено якість навчання студентів-медиків під час дистанційного навчання за допомогою використання інноваційних технологій, а саме Moodle. У статті обґрунтовано значну роль програми Moodle та дистанційного навчання: осмислення поставлених цілей у навчанні, отримання значного «багажу» знань, новітньої інформативності та доступності до ресурсів, самонавчання, самовдосконалення й формування особистості «лікар». Доведено доцільність застосування програмного забезпечення серед студентів – медиків, враховуючи структурованість, логічність, постійне оновлення матеріалів, безпосереднє оцінювання студента шляхом тестових завдань і практичних занять. За допомогою програмного забезпечення Moodle під час дистанційного навчання студент медичного спрямування самостійно та усвідомлено зорієнтується у патології на основі отриманих знань, чітко та обґрунтовано попередньо поставить висновок (діагноз) із подальшим відповідним лікуванням. Поєднане застосування програмного забезпечення системи Moodle та висока кваліфікація викладачів підвищують якість освіти і спрямовують студента-медика добре орієнтуватися у навчальному матеріалі й підвищувати свої практичні навички представленими матеріалами та наочностями.

Ключові слова: Moodle, дистанційна освіта, навчальні матеріали, дистанційне навчання, відеолекції, модернізація

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Features of Using Health-Saving and IC-Technologies in the Formation of a Socially Mobile Teacher in a Pandemic Condition

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Abstract. The new reality caused by the coronavirus pandemic opens up the possibility of updating the content of professional training of socially mobile educators by means of health-saving and information-communication technologies. The purpose of the study is to analyse the features of the use of health and IC-technologies in the process of forming a socially mobile teacher in a pandemic. The research methodology includes theoretical analysis and generalisation of psychological and pedagogical sources, elaboration of legal documents in the field of education, study and generalisation of experience of scientific and pedagogical workers, disclosure of basic theoretical provisions, identification and substantiation of key concepts. The authors present a detailed analysis of the concepts of "health", "health-saving technologies", "information and communication technologies", "social mobility". The purpose and tasks of health-saving and IC-technologies are clarified. Ways to implement and use health-saving technologies in educational institutions during the pandemic COVID-19 have been identified. Methods of application of information and communication technologies in the conditions of distance learning are offered. A number of advantages and disadvantages of ICT in education are identified. The guidelines of successful realisation of a socially mobile teacher in the modern educational reality are determined. It has been found that social mobility as an integrative ability of an individual to adapt to the changing environment and changes dictated by society is perhaps the most important and relevant feature in our time. It is determined that the readiness to implement, combine and use in professional pedagogical activities of health-saving and IC-technologies indicates the formation of social mobility of the teacher. The experience of using health-saving and information-communication technologies by scientific and pedagogical workers of Ivan Franko National University of Lviv in the process of becoming and formation of socially mobile educators in the conditions of the COVID-19 pandemic is described. The practical value of scientific work lies in the substantiation and generalisation of pedagogical conditions for updating the content of professional training of future teachers through the prism of their ability to social mobility

Keywords: COVID-19 pandemic, distance education, ICT, health, health-preserving educational environment, educational technology, teacher, social mobility, student

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INTRODUCTION

The COVID-19 pandemic, which affected all spheres of human activity, caused the transformation of the educational process at every level. The situation with coronavirus disease has forced academic workers around the world, including in Ukraine, to reconsider the principles of curriculum and training programmes for future professionals, taking into account the conditions of distance learning.

The new educational reality faced by teachers became the basis for creating quasi-extreme conditions for the work of employees of all structural units. Both teachers and students were forced to study remotely, adapting to different educational platforms. Teachers were faced with the task of finding and analysing the most optimal and easy-to-use tools, online programs, and services to ensure and not break communication with students. After overcoming the severe spread of coronavirus infection, the WHO (World Health Organization) has drawn attention to the importance of organising face-to-face or mixed education, which combines online lessons, conventional learning, and independent work. In this regard, the leaders of the educational process had to organise training in such a way as to prevent or minimise the spread of infection in educational institutions, adhering to the established sanitary and anti-epidemic measures (social distancing, mandatory wearing of protective masks, temperature screening, surface disinfection, etc.).

Given the above-mentioned conditions and the priority of the skills approach, which is one of the modern educational vectors of education development in Ukraine, the authors of this study believe that in the process of becoming a teacher of the new generation nowadays, health-saving and information and communication technologies are extremely important. Today, mastering these technologies and relevant competencies, in the authors' opinion, is basic and mandatory during the development of social mobility of the future education specialist, and especially in quarantine.

Problems of the introduction and use of health-saving technologies in the field of education have been studied by Ukrainian and foreign scientists. In particular, the practical aspects of strengthening and maintaining the health of the individual are widely covered in the studies of V. Yefimova [1], Y. Boychuk [2], T. Lavrenova [3], and V. Shakhnenko [4]. Of particular relevance are studies that reveal various aspects of the development of a culture of health and a healthy lifestyle [5; 6], specific issues of creating a healthy environment for the professional activities of teachers and students [7; 8].

Ukrainian researchers analysed aspects of the practical application of modern information and communication technologies in professional activities, in particular, they gave a general description of the implementation of IC technologies in the educational process of higher education [9], clarified the role of computer technologies during epidemics [10], identified ways to use distance technologies as a factor of positive impact on improving the quality of education [11].

At the present stage, the problem of development

of mobility in the professional training of teachers is reflected in the scientific achievements of scientists who studied the peculiarities of the development of social, professional, socio-professional mobility of specialists in various branches of education: preschool [12], primary [13], general secondary [14].

The analysis of a number of works showed that there is a connection between health-saving and information and communication technologies (S. Dishleva [15], S. Yermakov [16], L. Ivashchenko [17], S. Kanishevsky [18]). At the same time, there is an objective dependence of the information and communication competence of the teacher on his professional and social mobility (L. Familyarska [19], A. Kolomiets [20]). However, aspects of the combination of health-saving and information and communication technologies in the process of professional training of teachers who are able to quickly adapt to changing conditions and act in unusual situations, in particular during a pandemic, have not yet been studied. The authors of this study believe that the willingness to implement, combine, and use health-saving and IC technologies in professional pedagogical activities indicates the completeness of social mobility of the teacher.

The purpose of the study is to analyse the characteristic features of the use of health-saving and information and communication technologies in the development of a socially mobile teacher in a pandemic.

The objectives of the study:

- to analyse the basic concepts of research “health”, “health-saving technologies”, “information and communication technologies”, “social mobility”;
- to find out the purpose and tasks of health-saving and IC technologies;
- to identify ways to implement and use the above-mentioned technologies in educational institutions during the pandemic COVID-19;
- to offer ways of application of IC technologies in the conditions of distance learning;
- to trace the connection between the use of health-saving and information and communication technologies in the development of a socially mobile teacher during the pandemic.

METHODOLOGY

The object of research is the personality of a socially mobile teacher, and *the subject* is health-saving and IC technologies as factors in the formation of a socially mobile teacher in a pandemic. The methodological basis of the work is the scientific provisions of the humanistic paradigm of the philosophy of education, the theory of the content of education, the theory of systems; methodological approaches (skills, integrative, noospheric, narrative, synergetic, acmeological, civilisational, historical-pedagogical, fundamental, paradigmatic, ambivalent, structural-activity, systemic); theories of development and self-development of personality; modern didactic provisions on the content, methods, and technologies of higher education.

The research methodology includes theoretical

analysis and generalisation of classical and modern philosophical, psychological pedagogical, sociological and methodological sources, elaboration of normative legal documents in the field of education (Law of Ukraine "On Education" of 05.09.2017 № 2145-VIII [21]; Statute (Constitution) WHO: international document of 22.07.1946 [22], Law of Ukraine "On Childhood Protection" of April 26, 2001 № 2402-III [23], Law of Ukraine "On Amendments to Section II "Final Provisions" of the Law of Ukraine "On Amendments to Certain Laws of Ukraine on Provision of Treatment of Coronavirus Disease (COVID-19)" on prolongation of validity in connection with the threat of increasing incidence of coronavirus disease (COVID-19)" of 19.06.2020 № 737-IX [24]; Some issues of the organisation of distance learning: Order of the Ministry of Education and Science of 08.09.2020, Resolution of the Chief State Sanitary Doctor № 50 of 22.08.2020 "On approval of the Provisional Recommendations on the organisation of anti-epidemic activities in educational institutions during the quarantine period in connection with the spread of coronavirus disease (COVID-19)" [25], study, generalisation, and testing of experience of research and teaching workers, disclosure of basic theoretical principles, identification and justification of key research concepts.

At the first stage of the study, the authors singled out and comprehended the scientific problem of forming a socially mobile teacher by means of health-saving and information and communication technologies, substantiated the relevance, timeliness, and novelty of the phenomenon being studied in the COVID-19 pandemic. The authors have formulated the title, defined the purpose and objectives, identified the object and subject of research, as well as the choice of research methods (analysis, synthesis, abstraction, axiomatic method, induction, modelling, method of analogy, observation, generalisation, and systematisation of conceptual theoretical foundations).

The second stage involves recording the initial data about the object under study, study itself and description of previous scientific experience, identification of causal relationships, selection of factual material with a detailed analysis of research concepts and approaches to interpreting scientific and educational definitions of "health-saving technologies", "information and communication technologies", "social mobility". The authors of this study have developed legal documents that regulate and prove the importance of implementing the above-mentioned technologies in the educational process in the context of the skills approach and pedagogical conditions of distance and mixed learning. Research focuses on creating a comfortable and safe health education environment for applicants and educators, so the authors provide practical advice and guidance on the use of health technologies by educators, especially in the current context of the COVID-19 pandemic. The second stage of the work also reveals the advantages and disadvantages of information and communication technologies and proposes ways of using IC technologies in educational institutions during distance learning on the example of the experience of Ivan Franko National University of Lviv.

At the third stage of the study, an integrative link

between health-saving and information and communication technologies was established using a synthetic method, which, according to the authors, are factors in the development of a socially mobile education specialist in the new quarantine reality. The formulated results and prospects of further research on this topic are presented in the conclusions of the study.

RESULTS AND DISCUSSION

Health-saving technologies

Nowadays, the issue of training students in quarantine conditions that are not threatening for staying in an educational institution is especially acute. Who should facilitate this and organise safe learning? First of all, the administration of the educational institution, which is responsible for ensuring the availability of personal protective equipment for workers (protective masks and eye protection), systematic disinfection and ventilation of premises, control and verification of compliance with anti-epidemic norms. However, a critical commitment to students, parents, education facility, and society, in particular, lies with the educator, who must be prepared morally, physically, and professionally for such an unpredictably heavy "burden". That is why it is now very important for educators to use health-saving technologies in their work, which will be able to increase the effectiveness of the educational process, to form values for teachers and parents aimed at preserving and strengthening the health of children.

Let us explain the concept of "health" from the point of view of medicine and pedagogy. In the international community, the definition of health is set out in the Preamble to the WHO Statute: "Health is a state of complete physical, spiritual and social well-being, not only the absence of disease or physical disabilities" [22]. World science has developed a holistic view of health as a phenomenon that integrates at least four of its areas or components – physical, psychological (mental), social (public) and spiritual. All these components are inseparable from each other. O. Shchipanovska defines the term "health" as "a set of physical, spiritual, social qualities of a person, which is the basis for longevity and a necessary condition for the implementation of creative plans, high efficiency, family, birth and upbringing of children" [26, p. 45].

Researchers characterise the main components of a healthy lifestyle, which include: rational nutrition, physical activity and conditioning, personal hygiene, absence of bad habits, positive emotions, intellectual development, work and rest, self-control over health [27, p. 36]. According to N. Patkova, "from the standpoint of a modern teacher, a healthy person is one who effectively copes with stress and is able to prevent and resolve conflicts; makes responsible decisions; finds his or her sociocultural niche; is mobile in a changing labour market; not only adapts to external conditions but meaningfully rebuilds them, thereby improving public health" [28, p. 10].

The authors of this study believe that in the context of the pedagogical point of view, it is appropriate to talk about the health of students as of main subjects of the professional activity of the teacher. Let us turn to the definition given by

O. Kaplun, that children's health is "a social value, an integral part of social wealth, and therefore the development of a healthy lifestyle, health culture is considered as a matter of national importance, the global task of society, school, family, the child himself" [29, p. 298]. Accordingly, an important component in the implementation of the main objectives of education are health-saving technologies, which indicate the prioritised and unprecedented importance of students' health.

L. Kravchuk interprets health-saving technologies as those that create "safe conditions for staying, studying and working in an educational institution and solve the problem of rational organisation of the educational process (taking into account age, gender, individual characteristics and hygienic standards), compliance with educational and physical loads to the child's capabilities" [30, p. 44]. According to the researcher, the purpose of health-saving educational technologies is to "...provide the conditions of physical, social, spiritual, mental health that contributes to the comfort of the individual..." [30, p. 45]. M. Smirnov gives the following definition of health-saving technologies – it is "a functional system of organisational tools for managing educational, cognitive and practical activities of students, which scientifically and instrumentally ensures the preservation and promotion of health" [31]. L. Rybalko claims that the concept of "health-saving technologies" combines all areas of the institution's activities to form, maintain and improve the health of students. The researcher systematises and identifies the main approaches to the interpretation of the definition of "health-saving technologies":

- systematic – an indicator of the quality of educational technologies;
- activity – the optimal combination of conventional learning technologies with the principles, methods, and techniques aimed at supporting and maintaining health;
- skills – technologies for the development of health-saving and health-developing competencies, learning the

basics of health, a healthy lifestyle, forming a picture of the world of a healthy personality;

- integrated – educational and methodical complex of recreational and physical activities and healthcare measures;
- environmental – creating a healthy educational environment;
- personality-oriented – providing training and education taking into account the individual, age and psycho-physiological characteristics of students [32].

The practical implementation of health-saving technologies in the educational process is clearly represented in the classification of N. Tolokonnikova [33], who describes the types of health-saving technologies in the modern school in her study, where different approaches to healthcare, methods, and forms of work are being applied. The authors of this study believe that the technologies presented by the researcher can be interpreted as universal for all students of each branch by analogy. The authors provide the relevant adaptation of this classification:

1. *Medical and hygiene technologies*, which include a range of measures aimed at maintaining proper hygienic conditions in accordance with the regulated sanitary norms and the functioning of medical offices in educational institutions.
2. *Recreational and physical technologies* aimed at the physical development of students. Mostly these technologies are implemented in physical education classes and sports sections' activities.
3. *Ecological health-saving technologies* that help to educate students to love and care for nature, which strengthens their spiritual health.
4. Life safety technologies implemented by labour protection specialists.
5. Educational health-saving technologies, which are carried out using pedagogical techniques, approaches to solving emerging problems [33, p. 91] (Fig. 1).

TYPES OF HEALTH-SAVING TECHNOLOGIES



Figure 1. Types of health-saving technologies

Thus, health-saving technologies in education are technologies designed to fulfil the tasks of modern education – to preserve, improve and enhance the health of students, teachers, and parents. The main goal of health-saving technologies is the education of a culture of values in the context of the child's conscious attitude to his own health and the health of people around him.

The authors of this study believe that the teacher directly chooses health-saving technologies in accordance with the activities and priorities of the educational institution, the state of students' health, available human

resources, logistics, established level of trust and cooperation with parents, environmental factors, ability to effectively monitor the efficiency of the implemented technologies. In the context of the development of social mobility, the issue of psychological readiness of teachers to restructure their professional activities in a pandemic becomes relevant. The introduction of health-saving technologies, self-improvement, self-education, the level of awareness of responsibility for their own health and the health of their students – are the guidelines for the successful implementation of a socially mobile teacher in modern educational reality.

Information and communication technologies

Informatisation of all spheres of human life does not pass over education. Consistent entry of information and communication technologies into the educational process changes the conventional views on education in Ukraine. The use of IC technologies enables the existence of quality distance education, which, in turn, is an effective way to increase the intellectual potential of the population, has a number of advantages for both teachers and students. Distance education is especially relevant during a pandemic when the usual forms of learning become impossible due to quarantine conditions. Information and communication technologies make it possible to blur the boundaries between cities and villages, unite students and, at the same time, prevent the spread of disease. All these factors are a prerequisite for improving the quality of education, provide additional emotional and intellectual incentives for education, promote the principles of continuity and regularity, even during quarantine restrictions. First of all, let us pay attention to the definition of “information environment”, which, according to the authors, is a condition, a field of functioning and implementation by the teacher of the principles, methods, and means of information and communication technologies.

According to E. Levina, the information environment includes many information objects and connections between them, as well as tools and technologies for searching, storing, broadcasting, processing, creating, and distributing knowledge, tools for reproducing audio-visual information; organisational and legal structures that support information processes [34, p. 5019-5031]. According to G. Shvachych, the “information and communication technologies” (ICT) is not unambiguous. The author defines IC technologies as

a set of various technological tools and resources used to provide the process of communication and the creation, distribution, storage, and management of information. These technologies are computers, the Internet, radio and television, as well as telephone communication [35, p. 11]. Order No. 1115 of Ministry of Education and Science of 08.09.2020 defines the concept of information and communication (digital) technologies of distance learning, which is interpreted as “technologies for creating, accumulating, storing, and accessing electronic educational resources in educational subjects (integrated courses), as well as providing organisation and support of the educational process using specialised software and means of information and communication, including the Internet” [36].

The introduction of IC technologies in the educational process requires qualitative alternative educational and methodological support. This necessitates the use of computer and software means of transmitting and storing information: electronic libraries, archives, textbooks and multimedia, local and global educational networks and platforms, reference and information retrieval systems. Given the need for quality training of students in accordance with educational plans and programmes, especially in the conditions of coronavirus infection, teachers need to pay attention to modern electronic educational resources and online tools for distance education, which are also means of IC technologies. The authors of this study offer ways to use information and communication technologies in the educational process in terms of distance learning, presented in Figure 2.

Notably, the use of information and communication technologies in the educational process has a number of advantages (Fig. 3).

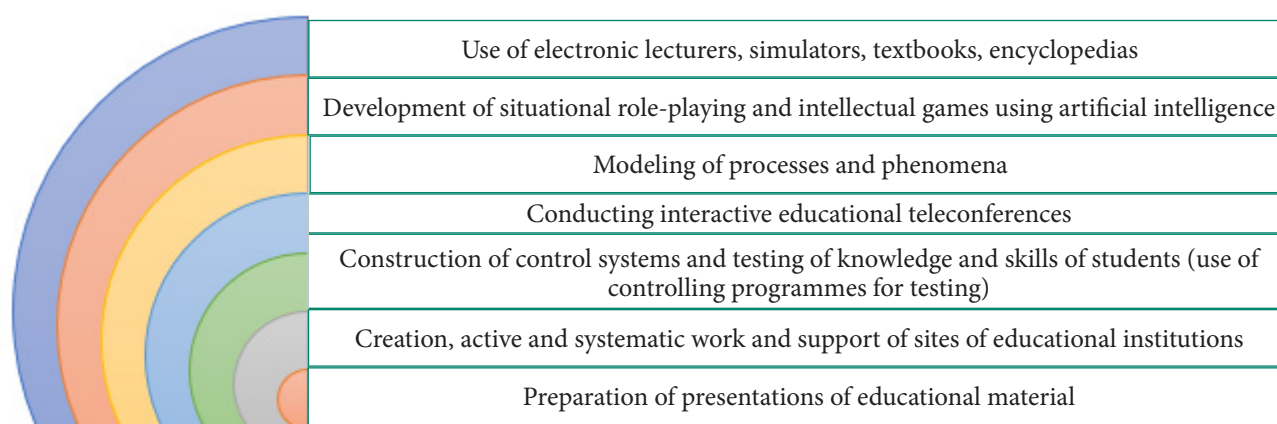


Figure 2. Methods of information and communication technologies' application in the educational process in the conditions of distance learning

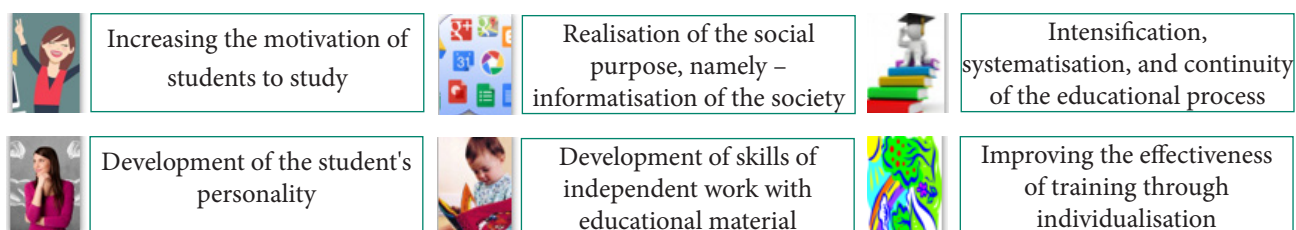


Figure 3. The advantages of using IC technologies in the educational process

The authors can state that the use of computers in education has led to the emergence of a new generation of information technologies in education, which in today's instability has become, without a doubt, the "life jacket" of educators. The COVID-19 pandemic has reaffirmed the indisputable principles of distance education. After all, in order to productively use IC technologies, it is necessary to provide educational institutions with computers, access to global and local educational networks, periodically train teachers to improve teaching skills, which, in fact, contributes to the development of social mobility – the ability to have flexible and comfortable work of teachers in new educational realities.

Development of a socially mobile teacher

Social mobility as an integrative ability of an individual to adapt to the changing environment and changes dictated by society is perhaps the most important and relevant feature of modernity. Socially mobile education specialist is becoming competitive and demanded in the labour market, because speed and efficiency, flexibility and adaptability, innovation and mobility are the main characteristics of the teacher of the new conditions of modern educational space.

When it comes to the development of social mobility, first of all, adaptation to the environment, new operating conditions are meant, in particular, the authors focus on the study of coronavirus reality, which represents new circumstances for the professional activities of teachers. Educators, teachers, lecturers, in accordance with laws and regulations, are required to work in educational institutions in compliance with anti-epidemic norms and rules – in full-time or mixed learning [25], as well as be prepared for distance learning if the morbidity level in the region exceeds acceptable levels or the country introduces a general strict quarantine [36]. This makes it possible to assert the existence of full-time quarantine (offline) and distance (online) educational environments in which teachers with an established ability to social mobility should work. In this aspect, it is extremely important to organise the educational process in such a way that unforeseen circumstances, such as forced transitions from full-time/mixed to distance learning, were "painless", comfortable and flexible for both students and teachers.

The authors agree with O. Kivliuk, who notes that conducting classes using IC technologies requires teacher's skills for effective implementation of information and communication and health-saving technologies, knowledge of methods of using these technologies in education, taking into account the age characteristics of students [37]. Additionally, in a pandemic, teachers need to pay special attention to the well-being and health of students.

The experience of the academic workers of Ivan Franko National University of Lviv shows a real picture of the process of establishment and development of social mobility of education professionals during quarantine. At the beginning of the pandemic, when national restrictions were introduced, the Rector's Order approved a temporary transition to distance learning at the university. To support communication with students, teachers used various

online platforms and video conferencing services, social networks and messengers, including Zoom, Google-Meet, Skype, Viber, Telegram, etc. However, due to the prompt work of the University Information Support Department, it was possible to systematise and establish feedback with students: teachers switched to the corporate platform Microsoft Teams, and students quickly gained access to university-wide corporate mail at lnu.edu.ua. Educators have begun to use cloud services, including Office 365, to provide access to lecture and seminar materials, as well as to collect and organise practical tasks completed by students.

The most fortunate were those teachers who actively worked in the online environment of e-learning before the quarantine, developed in the MOODLE system, which is one of the means of implementing distance learning at the university. This platform allows the teacher to independently create and manage distance courses, control access to educational resources, use time constraints, create their own knowledge assessment systems, control the timing of completed and submitted testing tasks, allow or prohibit students to retake control tasks (midterm or final – tests, exams), etc.

MOODLE provides convenient content management tools and various forms of organisation of classes. The distance course can contain various elements: lectures, practical tasks, independent work, forum. One can use text, presentations, tables, charts, graphs, videos, weblinks, auxiliary files, etc. at the same time. Based on the results of the completed tasks, the teacher can give points and comment on the work. The information-analytical report on the results of the survey on the state of use of distance learning technologies in higher education institutions of Ukraine identifies the level of skills and abilities to use distance learning technologies among academic workers, which is quite mediocre, as less than half (44.5%) respondents used such tools regularly [38].

In addition to the MOODLE system, academic workers began to keep records of students' achievement in electronic journals of academic groups in the automated system "Dean's Office", which performs the main functions of computerisation of administrative and educational processes. Thus, the situation with distance learning has contributed to the fact that the faculties of the university have accelerated the transition to electronic documentation and recording the results of academic performance of students. Now all modules of AS "Dean's Office" are actively functioning: questionnaires of students and employees in which all orders concerning the specific person (about enrolment/dismissal, transfer to vacant places of the state order, change of conditions (forms) of training/employment, change of a surname etc.) are reflected and fixed; curricula; journals of current control and formation of examination information; accounting for the pedagogical workload of academic workers; preparation of the educational schedule.

Despite the available resources and technical capabilities, not all academic workers were able to successfully adapt to the realities of work, as they faced a number of problems caused by objective or subjective reasons

for partial loss of communication with the coverage of students in the study group (poor mobile and Internet communication quality, lack of computer aids, problems of objective evaluation of students' work, difficulties with identification of students during credit and examination control, etc.). The problem of students passing various types of practice, in particular pedagogical, became especially acute. It was difficult for those workers who either rarely or did not use information and communication technologies in teaching before the quarantine. At the same time, the staff of the e-learning centre, marketing and communication department, ЄДЕБО (The state electronic database on education) department systematically conducted online seminars, webinars, trainings, methodical meetings on the practice of implementation and use of web resources, distance learning, online communication, including work in MS "Teams", educational platform MOODLE, "Dean's Office" system.

As soon as the situation with COVID-19 stabilised, educational institutions, including Ivan Franko National University of Lviv, switched to a mixed form of education: lectures were held remotely using digital technologies, and practical – in a face-to-face format in groups with a limited number of people, ensuring the maximum distance between students. Immediately before the start of classes, the teacher surveyed participants in the educational process about their health and the presence of symptoms of respiratory disease. If signs of acute respiratory infection were detected, students wore a mask, were temporarily isolated in a special room, and the dean's office of the faculty made an agreed decision to address the student to a health facility.

The use of health-saving technologies by academic workers of Ivan Franko National University of Lviv during the pandemic is manifested in the development of students' ability to apply skills of caring for their own health in temporarily suspended learning. Indoor gyms and stadiums, swimming pools and dance studios, a ban on leaving the apartment unnecessarily, etc. – these and other forced restrictions of the quarantine should not harm the lives and health of both students and teachers.

The educational environment of Lviv University meets sanitary and anti-epidemic norms and safety requirements for the life and health of students and employees. The higher education institution has developed a number of orders and instructions aimed at guaranteeing fire safety and civil protection standards. In order to preserve the mental health of all participants in the educational process, especially during the coronavirus SARS-CoV-2, as well as the humanisation of relations in student and teaching staff, there is the Psychological Service of the University, which provides free services. Health-improving activities and educational work to promote a healthy lifestyle are carried out by the Sports Club of the Department of Physical Culture and Sports, which provides the organisation of mass physical culture and health and sports activities for employees and students. Near the buildings of the university faculties, in particular the faculty of pedagogical education, the territory was landscaped, a recreational zone was arranged, where, in accordance with the recommendations

of the Chief Sanitary Doctor, practical classes of Master's educational programs of the faculty took place.

The results of observations generally indicate the completeness of social mobility in academic staff. However, it should be noted that education specialists, depending on cognitive-psychological and psychological, individual-personal characteristics, level of awareness of health-saving and IC technologies, flexibility and adaptability, in different time parameters (short-term/long-term) were able to adapt to unforeseen quasi-extreme conditions of the COVID-19 pandemic. One way or another, the teachers of Ivan Franko National University of Lviv overcame quarantine barriers and successfully adapted to new working conditions. As a result, subsequent changes or transitions from full-time to distance learning are not a problem today, because teachers already know the algorithm of work, and students can easily adapt to any circumstances. The authors of this study can say that now, on the contrary, it has become much more comfortable to communicate and receive feedback from students, organise scientific and practical meetings or consultations, reporting conferences or meetings.

According to the authors' opinion, the integration of a comprehensive approach to solving educational problems using the above-mentioned technologies is the factor shaping the social mobility of modern specialists in the field of education. The combination of health-saving and information and communication technologies in the modern realities of the pandemic is a necessary link, a kind of an "elevator" that unites and/or allows a smooth transition from one (full-time quarantine) to another (distance) educational environment. The COVID-19 pandemic in the educational trajectory is a challenge that has turned problems into opportunities and taught educators around the world to work in a new direction, improve classical learning technologies, implement innovative approaches and systems, create flexible educational trends.

CONCLUSIONS

Thus, the authors have found that the use of health-saving and information and communication technologies contributes to the development of a socially mobile educator during the COVID-19 pandemic. This phenomenon is manifested in the ability of education professionals for comfortable quick adaptation, restructuring of the algorithm in a changing environment.

The technologies studied by the authors are separate systems of the educational and methodical complex of work with students. They are aimed at providing optimal ways of professional and educational activities of subjects. The pedagogical conditions for the use of health-saving technologies in the quarantine educational process are face-to-face/mixed (offline), and information and communication – distance (online) learning, which allows teachers to systematically and continuously carry out the educational process without endangering the life and health of students. Thus, the teacher becomes socially mobile, because, owing to the above-mentioned technologies, one successfully adapts to the unpredictable conditions of modern educational realities.

The authors of this study believe that the theoretically analysed aspects of the studied educational technologies will draw the attention of scientists to a more detailed study of certain methodological and practical components. It should be noted that this may be an impetus for updating the content of professional training of future teachers through

the prism of their ability to social mobility. The authors see prospects for further research in the implementation and practical realisation of the proposed health and IC technologies in the process of training future professionals in educational specialisations.

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Особливості використання здоров'язбережувальних та ІК-технологій у формуванні соціально мобільного педагога в умовах пандемії

Анотація. Нова реальність, спричинена пандемією коронавірусної хвороби, розкриває можливості оновлення змісту професійної підготовки соціально мобільних педагогів засобами здоров'язбережувальних та інформаційно-комунікаційних технологій. Метою дослідження є аналіз особливостей використання здоров'язбережувальних та ІК-технологій у процесі формування соціально мобільного педагога в умовах пандемії. Методологія дослідження включає теоретичний аналіз та узагальнення психолого-педагогічних джерел, опрацювання нормативно-правових документів у сфері освіти, вивчення й узагальнення досвіду роботи науково-педагогічних працівників, розкриття основних теоретичних положень, виокремлення й обґрунтування ключових понять. Авторами подано детальний аналіз понять «здоров'я», «здоров'язбережувальні технології», «інформаційно-комунікаційні технології», «соціальна мобільність». З'ясовано мету та завдання здоров'язбережувальних та ІК-технологій. Визначено шляхи впровадження та використання здоров'язбережувальних технологій у закладах освіти в період пандемії. Запропоновано способи застосування інформаційно-комунікаційних технологій в умовах дистанційного навчання. Визначено низку переваг і недоліків використання ІК-технологій у просторі освіти. Означено орієнтири успішної реалізації соціально мобільного педагога в сучасній освітній реальності. Описано досвід використання здоров'язбережувальних та ІК-технологій науково-педагогічними працівниками Львівського національного університету імені Івана Франка у процесі формування та становлення соціально мобільних фахівців освіти в умовах пандемії. Практична цінність наукової роботи полягає в обґрунтуванні й узагальненні педагогічних умов оновлення змісту професійної підготовки майбутніх педагогів через призму сформованості в них здатності до соціальної мобільності

Ключові слова: дистанційна освіта, здобувач освіти, здоров'я, здоров'язбережувальне освітнє середовище, ІКТ, освітня технологія, пандемія COVID-19, педагог, соціальна мобільність

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The Mastery of Art Therapy in Working with Preschool Children

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Abstract. The study presents some aspects of art therapy in working with preschool children. The purpose of the study is to analyse the features of the creative activity of art therapy: game therapy, visual language, isotherapy, mandalas, collage; to reveal the characteristic features of the intervention of art in work with preschool children. The following general scientific methods were used to achieve this goal: analysis, synthesis, comparison, and modelling. It has been found that therapy helps children process difficult emotions, explore their "self", develop greater self-awareness and self-esteem, and learn to manage their emotions and solve problems. It has been studied that the creative process can help to work with memories, events and feelings that are identical to the emotions and activity of the child. It is substantiated that art therapy effectively helps children with anxiety, depression, trauma, and grief, and it can be used to increase the child's self-esteem, communication and problem-solving skills, socialisation. The necessity of using modern methods of art therapy is confirmed. The main aspects of working with preschool children are analysed. The practical side of using art therapy as an art for preschool children, tips and exercises that will help children get into the right way of thinking to create, which are included in any artistic activity to emphasise the therapeutic elements of the process. The current approaches to the art therapy process for preschool children are described: enhances creativity, allows children to express their thoughts and feelings, encourages the integration of psychological, physical and social aspects, improves productive functions, helps children make better decisions, helps children solve their problems, improves motility. The practical significance of the work is that it can be used by students, educators, psychologists, parents for in-depth study of art therapy in working with preschool children

Keywords: nonverbal communication, creativity, game therapy, visual language, isotherapy, mandalas, collage

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INTRODUCTION

Today, the problem of art-therapeutic mastery in working with preschool children occupies an important position among researchers' studies, as it is not new, but relevant. This is due to the prevalence of innovative technologies in the system of educational activities of children through art. Preschool is considered to be synthesising and therefore art therapy helps children to work creatively, reduce anxiety, stress and lighten the mood. Art therapy also provides social interaction in a safe controlled environment, helping to build empathy and other important social skills. The

purpose of art therapy is to support the healing process and improve the physical, mental, and emotional well-being of the pre-schooler. The relevance of the study of art therapy is determined by the fact that recently in Ukraine, psychotherapy is developing rapidly and its new forms and models are being actively acquired.

In order for a child to feel the multidimensionality of socio-cultural life in all its manifestations, and to be able to fully harmonise his own personality and its development in society, art comes to help, which is both an educational

and therapeutic parameter. In particular, art therapy, as an artistic activity, can be fun and exciting, complex and provocative, as well as stimulating, provoking reflection.

Scientific approaches to art therapy in work with preschool children are being under discussion: O. Bernatska [1] explores the means of filio-art therapy, O. Voznesenska [2] describes the features of art therapy as a method, S. Gorbova [3] reveals the importance of music therapy in preschool children, N. Olkhova [4] argues about the importance of art therapy as a means of creative self-realisation of the individual, S. Lebedeva [5] reveals the pedagogical possibilities of art therapy, R. Fedorenko [6] emphasises the importance of fairy tale therapy in psychological counselling of children and adults, O. Fediy [7] dwells in more detail on aesthetic therapy.

The studies of M. Belogurova [8], N. Galameiko [9], O. Derkach [10], E. Tararina [11], J. Ball, R. Kaur [12], Delphi Heather Lee, [13], D. Waller [14], L. Rappaport [15], A. Ikemi [15], M. Miyake [15], E. Hass [16], O. Nattman-Schwartz [16], A. Altman [16] deserve attention on the specified problems. In particular, O. Voznesenskaya [17] reveals media art therapy as a means of overcoming the consequences and prevention of psychotrauma. J. Ball and R. Kaur note that children who have difficulty processing and integrating sensory information, and difficulties with daily activities, can benefit from intervention, in particular, through art therapy [12]. D. Waller shares his research on the changes that occur in the process of physical involvement of materials, through the manufacture of a significant art object, through the sublimation of feelings in images, as well as through communication with the therapist through an art object. The scientist draws attention to the purpose of art therapy as a method of promoting positive change through interaction with the therapist and art materials in a safe environment [14].

The purpose of the study is theoretical and practical substantiation of the role of art therapy in the development of preschool children. *The objectives of the study* are: to clarify the essence of art therapy (game therapy, visual language, isotherapy, mandalas, collage); substantiate the effectiveness of art therapy in working with preschool children with anxiety, depression, trauma, and grief, as well as to increase the child's self-esteem, communication skills, socialisation; analyse the main areas of work with preschool children and offer tips and exercises for child's proper thinking in the process of creative activity.

LITERATURE REVIEW

Considering some aspects of art therapy in working with preschool children, it should be noted that the sociological context of the study of the outlined problem is related to the analysis of psychological research in the context of forms of artistic self-expression by art. In particular, O. Voznesenska substantiates the advantages of using the methodology of art therapy as a means of psychosocial recovery [18]. The pedagogical work of the scientist contains approaches to studying the use of art-therapeutic technologies in the education and social sphere. In her other scientific work, O. Voznesenskaya [19] defines the terminological field and diagnostic possibilities of art therapy, methodological

aspects of application of dance-movement therapy. Undoubtedly, the foundations of the aspirations and hopes of a modern person are based on obtaining additional energy to overcome the crisis, difficulties, or a worthy path through life's trials. This is possible given the complexity of the child's real life.

O. Derkach's research is also of interest, where art therapy is presented in colour, i.e., in the relation "colour-mood". By exploring the meaning of colours in their daily lives and their effects on the mind and heart, a person can gain inner peace through the effective use of these colours in everyday active life. Thus, the author notes that holistic healing and therapy can act as a "container" for powerful emotions, and can also be a means of communication between child and adult.

In their studies, L. Rappaport, A. Ikemi, M. Miyake, E. Hass, O. Nattman-Schwartz, A. Altman, I. Hrytsiuk [20], L. Magdysyuk [20], M. Zamelyuk [20], I. Podoliak [20] and others, and in particular, J. Ball and R. Kaur covered the issue of using art (music, painting, drama, literature, etc.) to develop personality and analyse its therapeutic effect. Notably, O. Fediy's research shows that the main means of art therapy include means resulting from the types of art: fine arts (art therapy), poetry or prose (bibliotherapy), dancing (dance therapy), fairy tale (fairy tale therapy). etc.

The authors share the opinion of O. Denisova that the importance of art depends on the harmonisation of social life of the individual with the environment and society, its utilitarianism, and conflict [21]. Notably, that art is directly in the combination of nature and person in terms of rhythm, symmetry, proportion, balance, which are the basis of beauty [21]. At the same time, some scientists (M. Mushkevych [22], I. Hrytsiuk [22], V. Koshirets [22], H. Khvorost [22], T. Duchyminska [22], L. Magdysyuk [22], O. Fenina [22]) note the complexity of the relationship between adult, child and art object, as well as how this process of changing the child's views on the world and its behaviour occurs.

Exploring the pedagogical foundations of art therapy in teacher's education, S. Lebedeva identifies the components of thermal centres. The author considers art therapy as a location of therapeutic and pedagogical approaches, innovative technology of the use of art, integration of multifaceted processes of human-art interaction. Actualisation of cognitive interests in various forms of art pedagogy and the formation of motivation for further independent activity in the chosen direction encourages teachers to create and expand the range of opportunities for children by combining the potential of art, pedagogy, and psychology.

Accordingly, the analysis of the above-mentioned works of scientists suggests that the problem of art therapy in working with preschool children is relevant and needs detailed study because by creating art, children can focus on their own ideas and feelings, increase self-esteem and work on social skills.

METHODOLOGY

The research was carried out using theoretical research methods: analysis (modern approaches to art therapy as art

in working with preschool children); synthesis (study of art therapy as a holistic system: game therapy, visual language, isotherapy, mandalas, collage); comparison (highlights the current state of the problem at the Ukrainian and world levels, analyses the latest research on the selected problem); modelling (the practical side of art therapy as art; effective tools for the development of critical thinking of the imagination in the process of the art-therapeutic process by art), which allowed to formulate their own view on the problem.

The scientific work of contemporaries who intersect with theories of psychotherapy was analysed, suggesting that changes occur in emotionally-adjusted therapeutic relationships in which people can express themselves through art, gain access and revitalise memories through sensory and embodied knowledge, gain a sense of security and release tension.

The described research methods provided not only a clear presentation of the material but also systematically presented the results of theoretical research on the factors, causes, and stages of work with children using isotherapy, which uses the process of creating images as a tool to realise what is happening in the child's soul. The analysis of the scientific literature involved the study of areas of research on the problem of art therapy in working with preschool children. The stages of the study characterise the

effectiveness of art therapy as a method in working with preschool children with anxiety, depression, trauma, and grief. This study showed that art therapy is successfully used in various contexts to improve the child's self-esteem, communication skills, socialisation. The methods used made it possible to relevantly and deeply analyse the selected issues at each stage.

Additionally, the article presents graphic images that form a logical perception of the studied material with the help of visualisation.

The obtained results will serve as a perspective for the empirical study of art-therapeutic work with children. This method is a useful tool for improving a child's life, as artistic expression allows children to handle adverse events in a way that is easier for them to create than to rely solely on their verbal skills.

RESULTS AND DISCUSSION

Analysis of the results of art therapy research in Ukraine and abroad

In order to deepen the study of the selected issues, attention was paid to the works of authors who studied art therapy, an analysis of art therapy practices was conducted in Ukraine and abroad. The results of this analysis are presented in Table 1.

Table 1. The practice of using art therapy in Ukraine and abroad

No	Author	Scope of the study
1	V. Anisimova	Art and morality to the subject of art pedagogy
2	A. Bayere	Application of art therapy to people of respectable age with certain memory impairments
3	O. Bulatova	Aspects of art-pedagogical approach in education
4	D. Murphy	Art therapy in work with children and adolescents who have experienced sexual violence
5	N. Rogers	While using various arts for self-medication or therapeutic purposes, people do not worry about the beauty of the work, the grammatical or stylistic correctness of the text, or the harmony of the song's sound; art is used to express, to facilitate
6	T. Karkalas	Art therapy provides an easier way of self-expression not only for children but also for adults. The individual learns to love himself by helping others to express themselves. Art therapy is not teaching something, but learning the smell of flowers and a sense of silence
7	T. Branch	Works on research on the effectiveness of art therapy methods for children with learning disabilities (including autism spectrum disorders – ASD) in primary education
8	S. Dobby Copeland	The practice of art therapy in addressing issues of diversity, work with traumas
9	D. Karmi	Conducted research on how children can learn empathy through images

Source: developed by the authors on the basis of research of L. Magdysyuk, R. Fedorenko, and M. Zamelyuk [6]

As is evident from Table 1, this phenomenon of art therapy requires detailed substantiation for the impact on the child's development and its non-verbal communication, the transmission of thoughts, feelings, or emotions without words. For those who have been abused, this is one way to "tell without talking" when they cannot or are afraid to talk about specific events or feelings; a sensory approach that helps children feel and communicate on different levels – visual, tactile, kinaesthetic, etc. Creative self-expression, in particular fine art, provides useful information about the development of children, especially those under the age of 10. For example, differences in creative development

may help to understand the child's emotional experiences, cognition, and sensory integration, but only to a certain extent, which is not always apparent through conversation therapy alone.

Neurobiology continues to inform mental health professionals about why specific arts-based interventions in the context of therapy may be beneficial to children. In particular, certain sensory characteristics of fine art seem to be effective in improving mood, sensory integration, and calming the body and mind, especially in children who have experienced traumatic events.

Like game therapy, art therapy provides an

opportunity to express a metaphor through artistic expression. In fact, a child who has experienced traumatic events or suffers from emotional disorders may only find it possible to create fantasy stories. With the support and guidance of a therapist, these stories serve as a way to slowly and safely release anxious or terroristic experiences.

All creative therapies are essentially relational therapies, as they involve active sensory dynamics between the practitioner and the individual, emphasising the connection between the child and the therapist. In this sense, art therapy can be useful for restoring and transforming attachment through experiential and sensory means and can take into account those early relational states that exist before words' domination, allowing the brain to establish new, more productive patterns [4]. Any professional who effectively applies the principles of art therapy to work with children is well versed in how to establish a positive commitment, attitude, and reflexive convergence, and the latter applies to the experience when two people cooperate. Creative expression, as well as a game, adds to these positive relational experiences many others, including sensory, affective, and cognitive direction.

Thus, art therapy allows children to express what has happened to them through art, and helps to reduce stress

and anxiety when they work to solve these problems. At the same time, it provides children with a safe place to express their negative feelings and emotions, thus improving the mental, emotional, and physical well-being of the child.

Art therapy as the mastery of a psychological tool

Let us consider art therapy as the mastery of a psychological tool using creative materials with which children can explore their thoughts and feelings. Art therapy goes beyond colouring and includes such activities as painting; writing stories and poems; choreographic dances; writing and performing plays, which can take place both in private therapy sessions and in groups, giving children the opportunity to work on their social communication skills.

Notably, that art therapy for children can be used to help a child cope with such a life event as a serious illness, parents' divorce, fighting against low self-esteem, anxiety, depression, learning disabilities, behavioural problems, and developmental delays (autism, etc.).

Fine art offers a completely natural form of communication for most children. That is why art therapy is often considered useful to help children in various difficult situations, such as personality and emotional disorders, speech disorders, childhood trauma, grief and loss (Fig. 1).



Figure 1. Pedagogical bases of art therapy with children

Source: developed by the authors based on research by S. Lebedeva [5]

In the practice of art therapy, it is advisable to use such art forms as game therapy, visual language, isotherapy, mandalas, collage, to evoke the expression of the deepest feelings, to build personal stories and increase the child's self-awareness (Fig. 2).

Some children have difficulty expressing their feelings in words, so art can help them express themselves. Using art as a tool for relaxation or emotional reflection concerns, first of all, the creative process, not the final work of art.

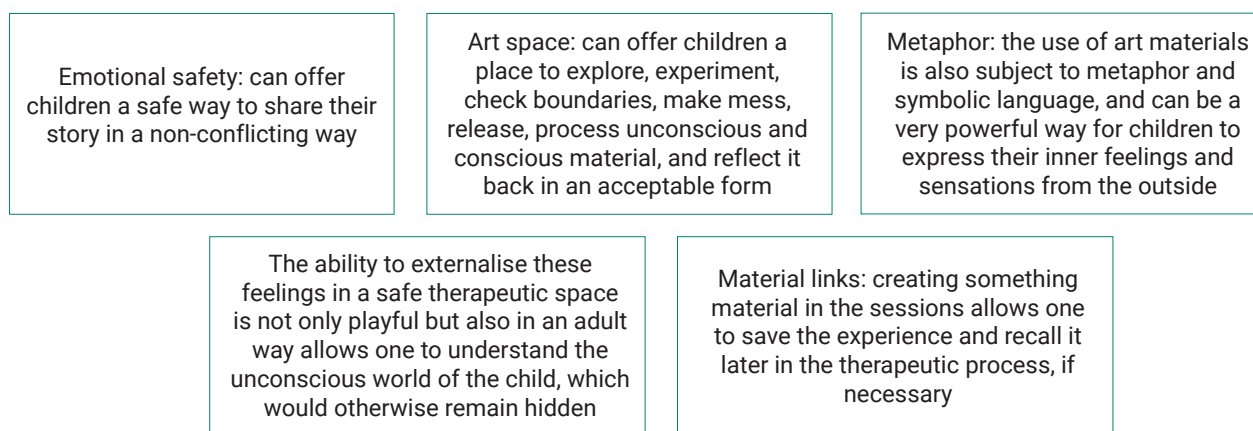


Figure 2. The main advantages of using an art-therapeutic approach with children

Source: developed by the authors basing on the research by L. Magdysyuk, R. Fedorenko, and M. Zamelyuk [6]

Art therapy can include art and previous activities that allow for therapeutic physical exercise and sensory

stimulation. With the help of works of art, these broad areas of concern can be addressed at the same time. For example,

the tactile experience of art and previous activities with clay helps children with dissociative disorders to integrate the experience through the ability to “touch, create and shape objects”. Art materials typically include paint, clay, pens, sand trays, drawing, pastels, oil crayons, a variety of collage materials, and a large selection of papers. Artistic creativity provides the child with a visual language in which he can express himself. For those who are trying to articulate thoughts and feelings, or are experiencing traumas for which it is almost impossible to find words, this can be an invaluable opportunity to begin to express themselves, reflect on their experiences and the problems they face. Most pre-schoolers usually express themselves more naturally and spontaneously through actions rather than words.

Thus, art provides a study of the child's world. Since the process of working with a child requires caution and delicacy, there are many reasons to use art in therapy with

children: it helps to create and improve their own ideas; enriches the child's life, and helps to see new facets of the world (new or renewed view of life that charges with energy); focuses children on what worries them in order to solve the problem; is a natural way of transmitting feelings and is socially acceptable.

Practical ways of using art therapy with preschool children

It is also worth paying attention to the practical side of art therapy as a mastery for preschool children. Let us focus on exercises that will help children get into the right way of thinking, express their ideas and fantasies about the world in which they live. Children also tend to use pictures to deal with various life phenomena. These tips and exercises can be incorporated into any artistic activity to emphasise the therapeutic elements of the process (Fig. 3).

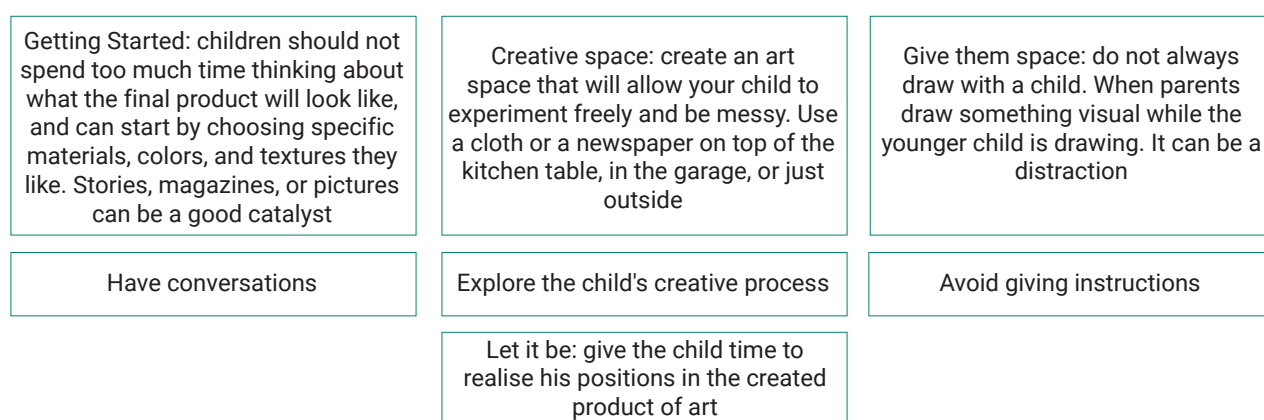


Figure 3. Tips for the art-therapeutic process

Source: developed by the authors based on the research by M. Zamelyuk, L. Magdisyuk, and N. Olkhova [4]

Children's curiosity shapes their potential for creativity. It is easy for them to invent things and come up with new ideas, which is reflected in their questions and the games they invent. Through the creative process, children can learn, explore, experience new emotions and perceptions, get inspired, learn to cope with difficult situations, and improve attention, motility, and visual-spatial skills. The difference is that they express them differently. Art-therapeutic exercises help to promote self-expression and problem-solving.

The technique of “Doodle” can be used with the child using colour, creativity, and circular movements, feel relaxed: helps to get rid of anxious thoughts, exit and focus on one's emotions; stimulate one's feelings; to fantasise, to create a game idea. Exercise for drawing doodles helps to relax, develop imagination, creativity, concentration.

By asking children to draw a place where they feel safe in the exercise “Recreate a place where you feel safe”, where there are waves of breath and the ocean, the child can immerse himself in the aesthetics of sensations. Children move the brushes upwards while inhaling and fill the lungs, and the hands move downwards, exhaling slowly, releasing air. Colouring the waves helps children visualise the pattern of breathing, noting that exhaling is longer than inhaling.

It is worth pointing out the main aspects of the use of dough art in working with children: the development of

fine motor skills (in a simple tactile game, the dough can be compressed, rolled, flattened, cut, carved, hammered, raked, pierced, crushed); eye coordination; general concentration of attention; imagination; creativity; calming effect (playing with the dough relieves stress); scientific discoveries, etc.

Exercise “Fairy stones” helps to express negative emotions, especially anger, to materialise them with the help of dough or clay. Invite the children to gently rub the sides of the stones with their thumbs and index finger to calm them down. Children can be asked to put them in their pockets so that they can use them when faced with a situation that may cause anxiety.

Exercise “Star”: establishing a relationship between child and adult. Each child is asked to draw themselves in the centre of the sheet as the sun or moon and also to “place” other members of the group in the form of stars around. In this way, the child draws those to whom he feels sympathy and trust. The information contained in the children's drawings is processed by the educator and transformed into a sociogram, which is also a drawing in which group members are drawn as geometric shapes. These figures are connected by arrows that show the nature of the relationship in the children's group.

Isotherapy, as an art-therapeutic method, is a creative, spontaneous, or thematic drawing. *Mandala therapy* can be offered as one of such tools in working with preschool

children. Coloured mandalas: children can decorate or paint existing mandalas to help them feel calm and relaxed, to connect with their deepest thoughts and emotions. If the child is old enough to draw with a certain accuracy, he can make his own mandala and then decorate it. This activity not only relaxes children but also stimulates their creativity. Mandalas and attentiveness: a therapist suggests that the child pays close attention to the creative process. To do this, the therapist uses elements that contribute to an environment such as relaxing music. With the help of mandalas, children can simultaneously express their feelings and improve their creative and visual-motor skills. Moreover, the art therapist can use his work to analyse the thoughts and feelings of the child. Mandala Colouring is an art therapy exercise for children that encourages relaxation and serenity.

Notably, that art therapy contributes to a clearer, subtle expression of one's experiences, problems, internal contradictions, on the one hand, as well as creative self-expression – on the other:

- Photos: the child can get to know himself by choosing different photos of himself and the world. The art therapist can analyse how the child chose the photos and how they relate to the child's conflicts.
- Paintings: children can use painting as their creative path. Even without realising it, the pictures show what is happening in their inner world. Moreover, an art therapist can draw with very young children to stimulate their feelings. Finger painting is a great way to stimulate different parts of the brain at the same time.
- Collages: Creating a collage can promote creativity. Moreover, it is also a great point for the child's thoughts and feelings.
- Sculpture: An art therapist may offer the child clay or the child may even make a "living sculpture" of his or her own body to express thoughts, situations, and certain feelings.

Through movement, children can integrate their emotional, cognitive, and physical bodies. It also appeals to their mood, as exercise and movement release endorphins and make it easier for them to express their emotions and ideas.

Theatre (psycho, mask image therapy) helps children to use reconstruction to express what is happening to them. Therapists often use theatre and drama to help children find solutions to their problems. The distinctness can help them think unconventionally. As an example, dance (form,

rhythm, dance therapy) has incredible therapeutic power because it helps children to direct their emotions. Music (music therapy) helps to solve emotional problems, strengthens creativity and encourages socialisation, increases attention, memory and helps children to structure their language. "Music and Reflections": For this exercise, the child should find and explore their deepest thoughts with music in the background. The child and the therapist then analyse the process so that the child can integrate his or her physical, emotional, and cognitive experiences.

"Composition": For this exercise, children use their ingenuity to compose a song that reflects what they think and feel. After they compose a song, they should sing it or at least talk about it. In one part of the session, they may even rethink or rewrite the song as a symbol of conflict resolution. With the help of the song, children can express their feelings in a really fun way. For example, they can choose songs that they identify with and explore their feelings with the help of a work group or therapist.

CONCLUSIONS

The generalisation of the above-mentioned allows the authors of this study to conclude that art therapy is mastery for preschool children and has the following advantages: enhances creativity; enables children to express their thoughts and feelings, encourages the integration of psychological, physical, and social aspects, improves productive functions such as attention, memory and spatial orientation, improves speech, stimulates self-awareness, helps children work better in groups, makes children feel safe and be heard, helps to increase self-confidence, promotes good communication, helps children make better decisions, helps children cope with their problems, improves motility skills.

Art therapy is a means of improving the child's well-being, which allows him to learn to express himself, resolve conflicts and problems using self-expression through art. Thus, art makes it possible to build therapeutic relationships around the creative activity of the individual. Art can act as a "bridge" between two people, creating both a space and a connection between the child and the therapist. This can help reduce anxiety and allow the child to go through the process of building relationships with adults.

Further research is associated with creative counselling, which combines creativity with game therapy, art therapy, sand therapy, visual images, miniature phenomenological worlds, therapeutic games, bibliotherapy, support skills, ethics, group therapy, and many others.

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Мистецтво арт-терапії у роботі з дітьми дошкільного віку

Анотація. У статті представлено окремі аспекти арт-терапевтичного мистецтва у роботі з дітьми дошкільного віку. Метою дослідження є аналіз особливостей мистецької діяльності арт-терапії: ігрова терапія, візуальна мова, ізотерапія, мандала, колаж; розкрити особливості втручання художнього мистецтва у роботу з дітьми дошкільного віку. Для вирішення вказаної мети було використано такі загальнонаукові методи: аналіз, синтез, порівняння та моделювання. З'ясовано як терапія допомагає дітям переробити важкі емоції, дослідити своє «Я», розвинути більшу самосвідомість та самооцінку та навчитися керувати своїми емоціями та вирішувати проблеми. Досліджено, що творчий процес може допомогти в обробці спогадів, подій та почуттів, які спів тотожні з емоціями та активністю дитини. Обґрунтовано, що арт-терапія ефективно допомагає дітям із занепокоєнням, депресією, травмою та горем, а також її можна використовувати для підвищення самооцінки дитини, спілкування та навичок вирішення проблем, соціалізації. Підтверджено необхідність використання сучасних методів арт-терапевтичного мистецтва. Проаналізовано основні аспекти роботи з дітьми дошкільного віку. Запропоновано практичну сторону використання арт-терапії як мистецтва для дітей дошкільного віку, поради та вправи, які допоможуть дітям увійти в правильний спосіб мислення для створення, які включаються у будь-яку художню діяльність, щоб підкреслити терапевтичні елементи процесу. Описано актуальні підходи щодо арт-терапевтичного процесу мистецтвом для дітей дошкільного віку: підсилює творчість, дозволяє дітям висловлювати свої думки та почуття, заохочує інтеграцію психологічних, фізичних і соціальних аспектів, покращує виконавчі функції, допомагає дітям приймати кращі рішення, допомагає дітям вирішити свої проблеми, покращує моторику. Практична значущість роботи полягає в тому, що вона може бути використана студентами, вихователями, психологами, батьками для поглибленого вивчення арт-терапії у роботі з дітьми дошкільного віку

Ключові слова: невербальна комунікація, творчість, ігрова терапія, візуальна мова, ізотерапія, мандала, колаж

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An Influence of Emotional Intelligence of a Psychologist (Teacher) on the Development of Emotional Intelligence of a Teenager with Intellectual Disabilities

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Abstract. The relevance of the study is being covered through the changes in modern educational standards and the latest approaches of psychology for special needs to people with intellectual disabilities, the search for new opportunities to improve the training, education, and psychological support of the individual at different age stages, in particular such crisis ones as adolescence. The purpose of the scientific work is to determine the specifics of the mutual influence of emotional intelligence of psychologists (teachers – head teachers, social workers) interacting with adolescent students with intellectual disabilities on the development of emotional intelligence and its components in people of puberty with atypical development (intellectual disorders). The study involved only those teachers who often and closely cooperate with teenagers, in particular, conduct educational and explanatory conversations, psychocorrective classes, psychotherapy sessions, etc. To determine emotional intelligence (both for adults and adolescents), two standardised test methods were used: "Emotional intelligence questionnaire (N. Hall)" and "Emotional intelligence questionnaire "Emin" (D. Lyusin)". In the course of the study, positive dynamics were established in experimental groups and an increase in the level of emotional intelligence and some of its components in adolescents with intellectual disabilities, who were influenced by psychologists (teachers, social workers) in the form of conversations, psychological correctional classes, and psychotherapy sessions. The reliable links between the components of emotional intelligence of psychologists/teachers and the level of development of emotional intelligence of adolescents with intellectual disabilities were established and confirmed by the results of statistical analysis. The results obtained make it possible to develop effective psychological support for the adolescents under study, and, if necessary, to carry out supervision of psychologists or conduct psychotherapy sessions with teachers

Keywords: emotions, type of intelligence, adolescence, disorders of psychophysical development, emotional intelligence of teachers, development of components of emotional intelligence

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INTRODUCTION

Psychological and pedagogical activities are always full of various stressful situations, unpredictable factors, which are often associated with the possibility of increased emotional response. Every tense situation causes emotional tension even in a professional, which can manifest itself in different ways: passively, passively-defensively (tears, despair), or in an aggressive form (raising voice, shouting). Young psychologists/teachers, in particular those who

work with exceptional children, that is, children with psychophysical development disorders, have a particularly high emotional stress. Many professionals (specialists in various fields) working in educational and specialised educational institutions note that after experiencing emotional stress, their well-being often worsens, their ability to work decreases, and so on (*used according to the results of research and conversations with workers of special

educational institutions in Kyiv, Zhytomyr, Chernihiv, Lviv – a study by O. Vovchenko [1].

In special psychology and pedagogy, a large number of studies are devoted to methods of teaching children with special needs (G. Borshchevska [2], O. Vlasova [3], V. Vovchenko [1], M. Manoilo [4], O. Sokolova [5] and others); there are whole courses that provide professional skills of teaching and communication of teachers, social workers, psychologists with children with atypical development. However, there is few research in the field of special psychology regarding the influence of the personality of psychologists (head teachers, educators, social workers), that is, the personality structure of those professional personnel who often communicate with the child, conduct correctional classes, educational conversations, therapeutic sessions with an individual with psychophysical disorders, in particular with intellectual disabilities. In particular, the influence of the emotional and behavioural sphere of an adult on the formation of the personality of a child with special needs, since it is known that “professional” and “emotional” burnout is possible in teaching, which requires research, as well as psychological correction and support, as M. Manaylova also noted in her works [4].

Along with the tasks of specialists (psychologists/teachers) of education and development of cognitive capabilities of schoolchildren of different ages, modern society and educational standards set a number of new tasks: support of socialisation processes, individual approach, development of emotional and social intelligence, that is, the formation of personality in a versatile, diverse way, which will allow adapting to the changing external conditions of society. Accordingly, priorities and requirements for the personal qualities and work of education employees are changing. The priority is not to communicate information to the child, in particular those with special needs, but to show understanding. Openness to new experience is important for a modern specialist. Thus, there is a transition to personality-oriented special education, which requires psychologists and teachers to make personal changes, primarily related to the integration of affective and cognitive processes.

In modern psychology for special needs, the problem of the unity of “intelligence and affect” is quite thoroughly covered through the scientific category “emotional intelligence”. Under the category of “emotional intelligence”, scientists understand a number of different definitions, models, and purposes (O. Vovchenko [1], D. Pahava [6], O. Sokolova [5], O. Prokopenko [7], M. Khomenko [8] and others). In a general sense, it is a set of personal abilities that provide understanding of emotional conditions and control of them, both their own and others. Emotional intelligence is a rather ambiguous, multidimensional psychological category that is difficult to study in children with psychophysical development disorders, in particular intellectual development disorders. However, it is worth noting that the study of this issue is rather urgent, since children with this atypical development (intellectual disabilities) have a number of problems related to the emotional-volitional, behavioural, and self-regulatory

spheres, in particular at puberty. At the same time, it is worth adding that the adolescent crisis has always been a difficult stage both for the child himself and for the immediate circle (parents, teachers, etc.). An adolescent is growing, changing rapidly, and dynamically rebuilding his life priorities. Everything that was important and interesting before becomes insignificant and indifferent. After all, the period is emotionally complex and often expressed through a behavioural aspect. Despite the fact that adolescents with intellectual disabilities have problems with emotional and volitional self-regulation, control over their own behaviour, are prone to suggestibility, aggressiveness, neurotic and anxious conditions, the adolescent stage has its own number of features and difficulties. In particular, the development of emotional intelligence is also atypical, compared to adolescents with a normal level of intellectual development.

Therefore, given all of the above, *the purpose of the paper is the study of the peculiarities of emotional intelligence of adolescents with intellectual disabilities and the relationship (influence) of emotional intelligence of the immediate professional circle (psychologists, head teachers, social workers) on the formation of the emotional sphere of the individual during puberty.*

LITERATURE REVIEW

In the modern psychological literature, the topic of “emotional intelligence” is mostly covered and studied by foreign psychologists and sociologists: R. Bar-On [9], G. Gardner [10], D. Goulman [11], M. Elias [12], D. Caruso [13], J. Mayer [14], P. Solovey [15], R. Sternberg [16]. The problem of emotional intelligence has also been actively studied by Ukrainian scientists: T. Berezovska [17], H. Borshchevska [2], O. Vlasova [3], L. Hanich [18], N. Kovryha [19], D. Lyusin [20], M. Manaylova [4], O. Nosenko [19], O. Sokolova [5], M. Khomenko [8]. The study of emotional intelligence is interdisciplinary in nature since the first studies were conducted not in the framework of psychology, but in sociology, as J. Zins [12] and M. Elias [12] note in their research. In particular, emotional intelligence according to E. Hanna [21], was considered as an integral part of social intelligence, since emotional intelligence is a system that helps a person adapt to social life. Thus, emotional intelligence is not part of the emotional or intellectual sphere, mainly of social.

Today, there are a number of theories and models of emotional intelligence, as well as test methods for studying emotional intelligence, which are mastered by foreign scientists. Thus, in studies of the influence of emotional manifestations of a teacher on the cognitive activity and emotional intellectual sphere of students, as noted by P. Yulianti [22] and N. Arina [22], it was identified that emotions play an important role in creating a comfortable environment for teacher interaction with students, as well as in the development of a positive emotional background for mastering knowledge and performing tasks provided for the student by the teacher. Ukrainian researchers also adhere to such statements, in particular in the research of A. Hanich [18] it is said that a positive emotional climate in the classroom increases the motivational level

and the desire to learn in adolescents, and the style of presenting information generally changes the attitude of the student's personality to the subject taught by a teacher with a positive emotional state. V. Melnichenko [23] and M. Khomenko [8], exploring the emotional and the behavioural sphere of adolescents with intellectual disabilities during the educational process, are noting that low level of psychological culture, insufficient development of emotional intelligence, communication abilities, and emotional self-regulation skills lead to a tendency to aggressive or indifferent behaviour in the significant part of teachers with students. Foreign scientists, in particular T. Elder [24] and P. Hammack [25] note that educational professions are professions of a large number of somatic diseases and neuropsychiatric disorders. Consequently, the problem of the emotional stability of the teacher is acute since the teaching profession belongs to the stressful category.

Often repeated unfavourable emotional conditions lead to the consolidation of negative personal qualities, such as irritability, anxiety, pessimism, which, in turn, negatively affects the effectiveness of the teacher's activities and relationships with children and colleagues, as S. Chesnut [26] notes. In the future, this can lead to general dissatisfaction with the profession. Given this, mastering the skills of emotional self-regulation is considered relevant for improving the psychological culture of teachers. The ability to manage emotions is a component of emotional intelligence, as D. Caruso [13], J. Mayer [14], P. Solovey [15] specified in their model and the research. Emotion management is the skill and ability to process emotional information, draw conclusions, and act in a self-regulatory way based on the conclusions obtained.

In connection with the above, an interesting experiment was considered. M. Karkmaz [27] and T. Cullen [26] conducted research on the influence of emotional intelligence and the emotional state of teachers, in particular emotional self-regulation, on the teaching process. Scientists have concluded that students, especially in adolescence, are quite sensitive to the emotional states of a educator, teacher, or psychologist. Thus, the experiment consisted of two stages. First of all, the first part of the empirical study consisted in the fact that the teacher during the lesson tried to negligently conduct a conversation with students, think about their problems, be indifferent, missed students' questions, shouted, demanded silence, gave written tasks and started texting in his own phone. Subsequently, after such a lesson, a survey of students was conducted, as a result of which it was found that they felt empty and felt a cluster of their own problems. The second part of the study consisted in using the opposite experiment – a teacher in the classroom who was positive, interested in the condition and mood of teenagers, answered questions, was moderately strict, etc., was immediately perceived by children. In the end, the results of a repeated survey of students showed that after communicating with such a teacher, the children felt motivated, wanted to do something positive, and so on. As noted by D. Pahava [6], a person with a high level of emotional intelligence takes responsibility for their own emotional state. At the same time, as a teacher and

psychologist with a high level of emotional intelligence and its components, he also takes responsibility for the development of emotional intelligence of his subjects (that is, children).

Modern Ukrainian scientists, G. Borshchevska [2], O. Vovchenko [1], V. Melnichenko [23], A. Prokopenko [7], O. Sokolova [5] propose to include in the concept of emotional intelligence three components: cognitive component (knowledge); regulatory component (the ability to manage one's own/extraneous emotions, influence on the affective sphere of others); behavioural component (willingness to apply knowledge about emotions during problem solving and social adaptation). As is evident, the scientific problem of identifying the mechanisms and influence of emotional intelligence on the modern life of a person is extremely relevant, poorly developed, and requires diverse research. This is the reason for the interest in emotional intelligence as a tool for increasing psychological and emotional connection, the influence of psychologists (teachers, social workers) on adolescent students with psychophysical development disorders, in particular, the study deals with intellectual disabilities.

MATERIALS AND METHODS

During the study of the influence of emotional intelligence of a psychologist (teacher) on the development of emotional intelligence of adolescents with intellectual disabilities, a number of scientific and methodological works of both Ukrainian and foreign scientists were analysed using methods of analysis, synthesis, and generalisation, as well as empirical research. The experiment involved 194 individuals of adolescent age with intellectual disabilities in Kyiv. Adolescents study in special boarding schools in Kyiv, visit rehabilitation and medical centres in Kyiv, including a special boarding school № 26 in Kyiv; special secondary school No. 17 in Kyiv; special secondary school No. 12 in Kyiv; Centre for Social and Psychological Rehabilitation of Children and Youth with Functional Disabilities of Darnytskyi District of Kyiv; Centre for Social and Psychological Rehabilitation of Children and Youth with Functional Disabilities of Solomyanskyi District of Kyiv, Medical Centre "Clinic named after V. Galchenko" of Kyiv. In addition, the study examined psychologists (in some institutions, a psychologist works with children together with a social worker), classroom teachers who conduct extracurricular upbringing, educational, correctional and rehabilitational, and psychotherapeutic work with adolescents with intellectual disabilities. The number of adult participants in the empirical study was 42. The study examined adolescents from 11-12 to 16-17 years old who were in these institutions. For the experiment, adolescents were divided into two groups: experimental (EG) and control group (kg). The experimental group was purposefully influenced by psychologists (teachers) to explain feelings, emotions, and experiences, classes and conversations were held on the development of an emotional sphere and emotional intelligence in general. That is, the purpose was the psychologists' (teachers') influence on adolescents to establish the relationship between the emotional

intelligence of EG adolescents and the psychological and pedagogical staff. For adolescents of the control group, only psychological diagnostics were performed by the selected methods for identifying the level of emotional intelligence. The EG included 101 adolescents with intellectual disabilities, CG – 93 adolescents with intellectual disabilities.

To identify emotional intelligence (both for adults and adolescents), two standardised test methods with a high level of reliability and validity were used. Firstly, the method “Questionnaire of emotional intelligence (N. Hall)” [28], [29], secondly, the method “Questionnaire of emotional intelligence “Emin” (D. Lyusin) [14]. The method “Questionnaire of emotional intelligence (N. Hall)”, in addition to measuring the overall level of emotional intelligence, is aimed at the study of its constituent components, according to the model of emotional intelligence developed by N. Hall. According to the scientist's research, the questionnaire contains five indicators and is measured on five scales: managing one's own emotions, emotional awareness, empathy, the recognition of other people's emotions, and self-motivation. N. Hall characterised emotional intelligence through the completeness of the ability to understand and perceive emotions (both one's own and others), the ability to manage the emotional sphere, make balanced decisions about emotional situations/experiences, etc., and the ability for self-management, self-regulation, and self-control. The test is convenient to use and has 30 questions-statements. It is understandable for both adults and teenagers, is informative enough for further analysis by a psychologist. On the other hand, the method “Questionnaire of emotional intelligence “Emin” (D. Lyusin) makes it possible to measure emotional intelligence according to the model of the scientist D. Lyusin, which provides for the division of the category “emotional intelligence” into two complete, fully functional structures: interpersonal emotional intelligence and intrapersonal emotional intelligence. Interpersonal emotional intelligence includes such components as understanding the emotions of others; managing other people's emotions, that this method allows measuring. Intrapersonal emotional intelligence also contains additional components that are

explored using the questionnaire: awareness of one's own emotions and management of one's own emotions. The test is also easy to use, small in volume and contains 46 questions-statements that are evaluated on a scale from 1 to 4. The results obtained create a fairly extensive description of the structure of emotional intelligence and the emotional sphere of the individual.

To determine the relationship and influence of emotional intelligence of psychologists (teachers, social workers) on the emotional intelligence of adolescents with intellectual disabilities, mathematical statistics were used, namely, Pearson's correlation coefficient, which demonstrated, for example, the presence of statistically reliable connections between the variable components of emotional intelligence of adolescents with intellectual disabilities with the general level of intelligence of psychologists/teachers. The psychological diagnostics were carried out according to the requirements for each methodology, standardised forms were used and the general procedure for conducting them was not violated. Since the questionnaires consisted of questions of varying complexity (the wording could sometimes not be clear for teenagers), certain phrases were discussed in the context of other life topics, everyday situations, etc. in preliminary classes/meetings with teenagers. This was discussed in advance and suggested to psychologists (where the authors of the study could not be present in person) because during the diagnostics it is prohibited to explain or interpret questions to respondents, as this violates the clarity of the results and general reliability of the experiment.

RESULTS AND DISCUSSION

According to the results of diagnostics of psychologists (head teachers, social workers) using the “Emotional intelligence questionnaire (N. Hall)” method, a high and average level of emotional intelligence was established, sometimes the results of low indicators were obtained on certain scales and a small percentage of low levels of emotional intelligence (Table 1).

Table 1. The level of completeness of emotional intelligence among psychologists (teachers) working (interacting) with adolescents with intellectual disabilities (in %)

An indicator of emotional intelligence of psychologists (teachers, social workers)	
High level	36
Average level	62
Low level	2

Thus, according to the results obtained, employees have an adequately developed emotional intelligence, which is predominantly described by an average level (62%). In addition, during the study, the levels and state of

completeness of the components of emotional intelligence are considered according to the author's model of the methodology N. Hall (Table 2).

Table 2. The levels of completeness of the components of psychologists' (teachers') emotional intelligence working (interacting) with adolescents with intellectual disabilities according to the method of "Emotional intelligence questionnaire (N. Hall)" (in %)

Scales	Emotional awareness	Managing one's own emotions	Self-motivation	Empathy	Recognising other people's emotions
High level	42	26	28	34	27
Average level	47	53	49	52	46
Low level	11	21	23	14	27

According to the results of diagnostics, it can be stated that mostly the components are characterised as an average level in adults. It is worth noting that the greatest difficulties that psychologists/teachers had were a scale of "recognition of other people's emotions" since it is for this indicator that the low level has the highest indicator. It can be assumed that this is due to a number of reasons: firstly, with professional activities, in particular, working with teenagers (especially those, having certain psychophysical disorders), it is quite difficult to predict their mood and understand their experiences. Adolescents with intellectual disabilities may show their emotions not in accordance

with their modality ("polar position"). For example, to laugh when someone is hurt or injured, or vice versa, to cry when someone was given something that another teenager was dreaming of. Secondly, such results are associated with professional burnout, fatigue from professional activities and the need for facilitation support, which is often considered as a norm in the work of psychologists, and the environmental attitude of a specialist psychologist to their mental health.

Adolescents with intellectual disabilities were also studied using the "Emotional intelligence questionnaire (N. Hall)" method, and very low indicators of the overall level of emotional intelligence were found (Table 3).

Table 3. The level of completeness of emotional intelligence of adolescents with intellectual development disorders of EG and CG according to the method of "Questionnaire of emotional intelligence (N. Hall)" (in %)

	An indicator of emotional intelligence of EG	An indicator of emotional intelligence of CG
High level	0.6	–
Average level	34	28
Low level	65.4	72

Notes: EG – adolescents of the experimental group, CG – adolescents of the control group

It is worth noting that EG has a small percentage that forms a high level of emotional intelligence, while at the same time, the indicators of the completeness of the average level of emotional intelligence have increased by 6%, and the low indicator also decreased and is characterised by positive dynamics. After correctional classes with psychologists (teachers, social workers), indicators of the level of completeness of emotional intelligence components of adolescents with intellectual disabilities improved qualitatively and quantitatively. The appearance of a high level

was recorded on two scales: emotional awareness and recognition of other people's emotions (Table 4). During the interaction of adolescents with a psychologist, the level of ability to manage their own emotions increased, that is, emotional self-regulation and personal control improved. Also, quite high results were recorded in the indicator of "empathy", which can be one of the main components, a base that will help to create, form, and qualitatively develop the "superstructure" of other components and general level of emotional intelligence.

Table 4. The level of emotional intelligence completeness of adolescents with intellectual development disorders of EG and CG according to the method of "Questionnaire of emotional intelligence (N. Hall)" (in %)

Scales	Emotional awareness		Managing one's own emotions		Self-motivation		Empathy		Recognising other people's emotions	
	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG
High level	2.3	–	–	–	–	–	2	–	1.7	–
Average level	47	34	38	31	28	25	67	59	48	42
Low level	50.7	66	62	69	72	75	31	41	50.3	58

Notes: EG – adolescents of the experimental group, CG – adolescents of the control group

Correlative relations were identified using mathematical statistics methods. Correlation analysis was carried out using the Pearson criterion, which made it possible to establish the reliability of connections between the level of intelligence of psychologists/teachers and indicators of emotional intelligence of adolescents with intellectual disabilities (Table 5). The choice of Pearson's statistical χ^2 criterion

is conditioned by the fact that the method allows assessing the significance of differences/similarities between the actual (identified as a result of the study) number of cases or qualitative characteristics of the sample that fall into each category, and the theoretical number that can be expected in the studied groups. That is, the choice of this particular criterion was justified by the fact that it made it possible

to assess the statistical significance of the relation between several relative indicators.

The obtained results of correlative relations indicate a high level of influence (relationship) of the emotional intelligence completeness of psychological and pedagogical personnel on the development of both the general level of emotional intelligence and individual components of emotional intelligence of adolescents with intellectual

disabilities. Thus, for example, the higher the level of empathy of a teacher/psychologist who works with a group of teenagers, the more actively this indicator will be formed in the group. If, for example, the motivational component is most complete in a teacher (head teacher), then the motivational component in a group of adolescents cooperating with him will be more active than all other components.

Table 5. Indicators of correlative relations between the components of emotional intelligence of adolescents with intellectual disabilities and the level of completeness of emotional intelligence of psychologists/teachers who conduct correctional and therapeutic sessions with them

Components of emotional intelligence and the general level of emotional intelligence completeness of adolescents in the experimental group (EG)	High level of emotional intelligence of psychologists/teachers	Average level of emotional intelligence of psychologists/teachers	Low level of emotional intelligence of psychologists/teachers
Emotional awareness of adolescents of EG	725*	651*	–
Adolescents' management of their own emotions of EG	649*	–	–
Self-motivation of adolescents in EG	–	659*	–
Empathy of adolescents in EG	825*	–	–
Recognition of other people's emotions by adolescents of EG	825*	651*	–
General level of emotional intelligence of adolescents of EG	638*	–	–

Notes: *at $p < 0.01$. A statistical indicator (a critical level of significance for several indicators in studies) indicates that mathematically N_0 = high significance, and the statistical solution indicates “values found at a high level of statistical significance”

The study of the “Emotional intelligence questionnaire ‘Emin’ (D. Lyusin) allowed studying the interpersonal and intrapersonal emotional intelligence of psychologists (teachers, social workers) working in correctional classes, extracurricular conversations, even by their own example affecting the development of the emotional sphere, emotional intelligence, and personality of adolescents with intellectual disabilities (Table 6). According to the results of diagnostics, quite high indicators of “average value” of

interpersonal (48%) and intrapersonal (46%) emotional intelligence were observed in psychologists/teachers. A high value also has sufficient indicators, but demonstrates that even an adult person with a normal level of intellectual development can have “low” and “very low” indicators for both general levels of emotional intelligence and its components because during an emotionally stressful situation, even an adult can find it difficult to control their emotions, affective states, and the like.

Table 6. The research of the completeness of emotional intelligence components of psychologists/teachers working (interacting) with adolescents with intellectual disabilities according to the method of “Emotional intelligence questionnaire ‘Emin’ (D. Lyusin) (in %)

Scales	Very low value	Low value	Average value	High value	Very high value
Understanding the emotions of others	4	9	39	34	14
Managing the emotions of others	7	12	47	31	3
Understanding one's own emotions	8	11	43	31	7
Managing one's own emotions	3	8	51	22	16
Expression control	6	11	47	24	12
Interpersonal emotional intelligence	6	18	48	24	4
Intrapersonal emotional intelligence	9	19	46	19	7

According to the results of the method “Emotional intelligence questionnaire ‘Emin’ (D. Lyusin) of adolescents with intellectual disabilities, the dynamics of EG results

was established, in particular, in relation to the values of intrapersonal emotional intelligence. Thus, the value of CG is 19% (average value), EG (28%) (Table 7).

Table 7. The state of completeness of interpersonal and intrapersonal emotional intelligence according to the method of “Emotional intelligence questionnaire “Emin” (D. Lyusin) of adolescents with intellectual development disorders EG and KG (in %)

Types of emotional intelligence	Very low value		Low value		Average value		High value		Very high value	
	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG
Interpersonal emotional intelligence	36.6	48	37	31	26	21	0.4	–	–	–
Intrapersonal emotional intelligence	32.3	47	39	34	28	19	0.7	–	–	–

Notes: EG – adolescents of the experimental group, CG – adolescents of the control group

Eventually, high indicators, as well as in the previous study by the method of N. Hall, were almost not found. Only interpersonal intelligence in the EG of adolescents with intellectual disabilities is characterised by a “high value” (0.4%) and intrapersonal emotional intelligence in the studied EG adolescents is recorded at “high level” (0.7%). In general, it is worth noting the positive dynamics and the impact of correctional classes and therapeutic sessions of psychologists/teachers on adolescents with a typical development. Since even correlative relations indicate a connection between the completeness of emotional intelligence indicators of psychologists/teachers on the development of emotional intelligence (interpersonal and

intrapersonal emotional intelligence) in adolescents with intellectual disabilities, with whom the above-mentioned psychologists work (head teachers, social workers).

Correlation analysis, as in the previous methodology, was carried out using the Pearson criterion, which made it possible to study the presence of statistically reliable connections between the components of emotional intelligence of psychologists/teachers who conduct correctional classes and interact with the studied adolescents and the completeness of interpersonal and intrapersonal emotional intelligence of adolescents with intellectual disabilities (Table 8).

Table 8. Indicators of correlative relations between the components of emotional intelligence of psychologists/teachers and the level of completeness of emotional intelligence of adolescents with intellectual development disorders of EG

	Interpersonal emotional intelligence	Intrapersonal emotional intelligence
Understanding the emotions of others	649**	651**
Managing the emotions of others	547**	
Understanding one's own emotions		659**
Managing one's own emotions	825**	
Expression control	784**	535**

Notes: ** at $p < 0.01$. A statistical indicator (a critical level of significance for several indicators in studies) indicates that mathematically N_0 = high significance, and the statistical solution indicates “values found at a high level of statistical significance”

According to the results of correlation analysis, it is possible to indicate a stable and strong mutual influence of the personality of a psychologist (head teacher, social worker) on the development of not just the emotional intelligence of adolescents, but also on the understanding of a teenager's own emotions, emotions of the environment, on the ability to control emotional experiences, to regulate personal states associated with the sensory, affective side of personality development in a difficult period of puberty. Thus, for example, it can be established that the interpersonal intelligence of adolescents with intellectual disabilities is most affected by the ability of a psychologist (teacher) to manage their own emotions. It can be assumed that the teenager imitates the behaviour of the older person. Thus, the greatest influence on the internal personal intelligence of a teenager is exerted by the ability of a psychologist/teacher to understand their own emotions and cope with them. This similarity in correlative relations allows assuming that the studied adolescents are characterised by the behaviour of imitating significant adults and those adults whom they have the opportunity to observe, and as a result – to imitate, take an example.

CONCLUSIONS

According to the results of the study, a significant relationship between the emotional sphere of a psychologist (teacher, social worker) working with children with special needs and the emotional intelligence of adolescents with intellectual disabilities was revealed. Positive dynamics were found in the experimental groups and an increase in both the overall level of emotional intelligence and its components in adolescents with intellectual disabilities. The results of research using the methods “Emotional intelligence questionnaire (N. Hall)” and “Emotional intelligence questionnaire “Emin” (D. Lyucin) were confirmed by statistical analysis using the Pearson criterion, which made it possible to establish reliable connections between the components of emotional intelligence of psychologists/teachers and the level of completeness of emotional intelligence of adolescents with intellectual disabilities.

Also, general increased interest and trend in research on emotional intelligence by foreign and Ukrainian researchers was established. The relevance of research on the influence of a teacher's personality on the personality of a child-student is increasingly being studied in different

aspects, taking into account different approaches and current trends in the scientific field. Science is increasingly beginning to interact in the interests and benefits of practice. Finally, the need for psychological support of

teachers (educators, head teachers), that is, that professional personnel who work with children, including those with special needs, regarding such an aspect as emotional and professional burnout, is revealed.

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Вплив емоційного інтелекту психолога (педагога) на формування емоційного інтелекту підлітка з порушеннями інтелектуального розвитку

Анотація. Актуальність дослідження розкривається через зміну сучасних освітніх стандартів і новітніх підходів спеціальної психології до осіб з порушеннями інтелектуального розвитку, пошуку нових можливостей покращення навчання, виховання та психологічного супроводу особистості на різних вікових етапах, зокрема таких кризових, як підлітковий вік. Метою наукової роботи є визначення специфіки взаємовпливу емоційного інтелекту психологів (педагогів – класних керівників, соціальних працівників), що взаємодіють з учнями підліткового віку з порушеннями інтелектуального розвитку на формування емоційного інтелекту та його складових у осіб пубертатного періоду з атиповим розвитком (порушенням інтелектуальної сфери). У дослідженні брали участь виключно ті освітяни, які досить часто та тісно співпрацюють з підлітками, зокрема, проводять навчально-роз'яснювальні бесіди, психокорекційні заняття, психотерапевтичні сесії тощо. Для визначення емоційного інтелекту (як для дорослих, так і для підлітків) було використано дві стандартизовані тестові методики: «Опитувальник емоційного інтелекту (Н. Холла)» та «Опитувальник емоційного інтелекту «ЕмІн» (Д. Люсіна). У процесі дослідження було встановлено позитивну динаміку в експериментальних групах і підвищення рівня емоційного інтелекту й певних його компонентів у підлітків з порушеннями інтелектуального розвитку, на яких здійснювався вплив психологами (педагогами, соціальними працівниками) у вигляді бесід, психологічних корекційних занять і психотерапевтичних сесій. Підтверджено за результатами статистичного аналізу та встановлено надійні зв'язки між компонентами емоційного інтелекту психологів/педагогів і рівнем сформованості емоційного інтелекту підлітків з порушеннями інтелектуального розвитку. Отримані результати дають змогу розробити ефективний психологічний супровід для досліджуваних підлітків, та, за необхідністю, здійснювати супервізію психологів або проводити психотерапевтичні сесії з педагогами

Ключові слова: емоції, тип інтелекту, підлітковий вік, порушення психофізичного розвитку, емоційний інтелект освітян, формування компонентів емоційного інтелекту

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Development of Professionally Important Qualities of Cadets by Means of Handball

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Abstract. The basis for the reliability of professional knowledge, skills, and abilities is a high level of development of physical, psychological, and psychophysiological qualities, which are formed in the process of studying at the flight academy by complex means, one of which is physical training. Targeted physical training classes can not only improve health and emotional tone, but also develop professionally important psychophysiological qualities. The purpose of the study is to theoretically substantiate the importance of handball for the development of professionally important qualities of Future Flight Academy specialists. To achieve this purpose, methods of theoretical analysis, synthesis, generalisation of scientific and educational literature on the research problem were used. The article reveals the importance of handball in the development of physical and psychophysiological qualities of cadets, as well as presents exercises and focused training for the development of physical qualities of future specialists who master aviation specialisations. The characteristic features of the influence of handball on the comprehensive development of cadets' personality are determined. It was established that systematic handball classes develop cadets' basic physical and psychophysiological qualities, important for professions of operator profile: emotional and vestibular stability; volume, distribution and switching of attention; the ability to extrapolate the development of the situation; the ability to quickly make decisions, and a number of other qualities that determine success in professional training of cadets of the academy. It is proved that handball is of great importance for the comprehensive development of future specialists, as well as their professionally important qualities. It is confirmed that the physical training of cadets of the flight academy using game sports, in particular handball, is an active method of successful implementation of their professional training. The results obtained will serve as a perspective for an empirical study of the relevance of the problem

Keywords: physical fitness, physical qualities, sports games, volitional qualities, training

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INTRODUCTION

The acceleration of social and economic development of Ukraine has posed a number of important problems for pedagogy, one of which is the training of highly qualified, socially active, professionally reliable specialists. The scientifically based organisation of professional training opens up great opportunities in the development of professionally reliable specialists in various fields based on the integration of all training tools and creates conditions for the development of individual structural units that should

have purposeful functions, in particular – by means of physical training in a professional direction [1].

The professional activity of aviation specialists places increased demands on the level of physical fitness. Research carried out by R.N. Makarov [2] and A.V. Mahlovanyi [3], proved that people with a high level of physical fitness, more successfully master flight professions. As an example, empirical studies of R.N. Makarov confirm that “physically trained pilots have a much lower level of emotional reactions

to the failure of navigation devices and aircraft systems, and piloting the aircraft and performing actions are more confident, which indicates that pilots are trained to act in special cases during the flight" [2]. For his part, A.V. Mahlovanyi argued that "students with a high level of physical fitness adapt well to the educational process" [3]. As a result, the researcher suggested that during physical education classes, students should form a thorough belief in the use of general development game exercises that allow them to maintain an optimal level of physical fitness, improve qualitative and quantitative indicators of mental performance, and also form resistance to stress during exam periods [3].

A high level of physical fitness is a factor that determines the level of general and special performance of aviation specialists, the state of dynamic health, which are directly related to professional longevity. This level should properly meet the requirements of accelerating scientific and technological progress in aviation, which makes it necessary to carry out a set of measures to improve general physical fitness, and in some cases the development of qualities that determine the successful development of the flight specialty, the reliability of professional knowledge, skills and abilities, a high level of efficiency and maintaining professional longevity. Thus, the basis for the reliability of professional knowledge, skills, and abilities is a high level of development of physical, psychological, and psychophysiological qualities, which are formed in the process of studying at the flight academy by complex means, one of which is physical training [4].

Modern requirements for the professional activity of aviation specialists in the educational process require the search for new ways, forms, methods, and means for training cadets. Insufficiently developed psychophysiological qualities (emotional stability, coordination of movement, resistance to overload, vestibular stability, etc.) are the main obstacles to successful mastering of the flight training programme by cadets. Experimental scientific research in the field of aviation by T.S. Plachinda [1], H.A. Leshchenko [5], N.A. Orlenko [6], I.I. Halimska [4], and others proved the high effectiveness of physical training tools in the development of such professionally important psychophysiological qualities as emotional stability, distribution and switching of attention, the ability to work at a high forced pace and perform additional work against the background of the main activity, etc. All in all, systematic physical education classes not only improve the emotional and physical state of health, but also develop certain psychophysiological qualities that are later necessary in the process of professional growth.

An analysis of scientific works of D.V. Bondarev [7], Zh.L. Kozina [8], T.Yu. Krutsevych [9], Yu.Yu. Muskharina [10] and S.M. Romanii [11] showed that sports games are the most popular among the tools recommended for the comprehensive development of students and the development of physical qualities since they contribute to solving educational problems in the process of physical training. However, very little attention is paid to the importance of sports games in the development of professionally significant qualities of future aviation specialists, improving their

performance and reliability. Therefore, *the purpose of the study* is to theoretically justify the importance of sports games, in particular handball, for the development of professionally important qualities of future flight specialists of an academy.

MATERIALS AND METHODS

To achieve this purpose, the study was conducted in two stages. The first stage involved the development of scientific and educational literature on the chosen issues of developing professionally important qualities of Cadets by means of handball. The second stage of the study was conducted on the basis of the developed scientific and methodological literature. Its essence was to provide focused training sessions aimed at developing the physical qualities of cadets of the Flight Academy of the National Aviation University.

During the study of the development of professionally important qualities of cadets by means of handball, such general scientific theoretical research methods as analysis, synthesis, generalisation of scientific and educational literature, as well as systematisation of the obtained data were used. In particular, based on the scientific works of Ukrainian and foreign researchers, the method of analysis was used to study the physical, psychophysiological, and psychological qualities that are necessary for future aviation specialists, and the importance of sports games, in particular, handball, for their development. The method of synthesis made it possible to collectively consider the components of the development of physical and psychological competencies of cadets of the aviation academy, provided that handball is used. At the same time, the generalisation method was used to systematise the theoretical base and provide an exhaustive justification for the need to introduce sports games, in particular handball, in physical training classes. All in all, the systematisation method helped to study approximate examples of exercises during handball classes to improve the professional qualities of future specialists in the field of aviation and form samples of training programmes in order to develop the strength, speed, endurance, and flexibility of cadets. Also, the paper presents graphic images that form the logical perception of the material under study using visualisation tools. The use of this method made it possible to demonstrate the material on approximate exercises for the development of certain physical qualities in a structured way.

In general, the conducted research is formed based on structural, functional, and systematic approaches. Thus, according to the structural and functional approach, the development of physical and psychological competencies of future aviation specialists by means of handball in the context of improving their overall professional development was considered. For its part, a systematic approach was used at the stage of reviewing scientific and methodological literature in order to identify the features of the development of professional qualities of pilots, as well as to select examples of physical exercises to guide approximate training of academy cadets.

Eventually, the methodological basis of the research

is characterised by the choice of the relevant topic, the analysis of modern scientific provisions of this topic. The methods used made it possible to analyse the selected problems in a relevant and deep way at each stage, which later helped determine the purpose and main objectives of the study of the development of professionally important qualities of cadets by means of handball. The results obtained will serve as a perspective for an empirical study of the relevance of the problem.

RESULTS AND DISCUSSION

The development of psychophysical qualities of cadets in the course of handball classes

One of the means of educating physical and psychophysiological qualities of aviation specialists is the use of sports games, in particular handball. Handball is a high-speed, fast-paced game where one needs to make the right decision in short periods of time, quickly respond to the referee's whistle, see the movements of team and the opponent's players, and so on. Handball players develop the following professionally significant psychophysiological qualities: volume, switching and distribution of attention, short-term memory and thinking, fine muscle sense, reaction speed, the ability to quickly reorganise, and so on. It is worth noting that the activity of a handball player in terms of psychophysiological characteristics is similar to the profession of aviation industry specialists, which is manifested in the need to quickly make decisions and think through all the changes in game moments. Eventually, it was found that specialists who are engaged in handball make the right decisions in difficult situations much faster than those who are not engaged in this sport. During handball classes, the mobility of the main processes of inhibition and excitation increases, as well as their balance, which is one of the key aspects of activity in conditions of time deficit and changes in its structure [12].

As is known, handball is an emotional sport, and this should not be ignored in the training of aviation specialists. Emotional arousal in handball occurs primarily as a result of:

- high speed of players' movement, the need to act quickly and suddenly with the ball, a wide variety of movements;
- dynamics of wrestling, sharpness of game positions, changes in game superiority, variable success, constant change of score, rapid change of various game situations;
- collective nature of game actions;
- the presence of martial arts.

Finally, as is obvious, players, as well as aviation specialists, have a need to develop emotional stability. If a person cannot contain their emotions, in handball this can lead to violations, exemption, in particular, to non-fulfillment of the task, and in flight practice to panic during an unforeseen situation. The success of practical actions of handball players in the game is a high level of development of such qualities as the distribution and switching of attention, the volume of the field of vision, reaction speed and response actions focused on speed of decisions, tactical thinking, speed of movement, etc. This level provides orientation for handball players in difficult game situations.

Thus, in order to achieve professionalism in handball, a player must be able to concentrate on the game, monitor the rapid movement of the ball and players on the court, quickly respond to the referee's whistle and, knowing the rules of the game, quickly understand where the ball will be played, and where it should be at this time – in attack or defense, quickly be able to run into the lead after an opponent's mistake. During the delivery, the handball player must assess in a matter of seconds, or even fractions of a second, where the goalkeeper is, where his players and the opponent's players are in order to successfully complete the attack. It is important for the player to be able to quickly switch central vision to peripheral vision, especially when there is a transition from defense to attack, in order to choose the right action in game situations. It is worth noting that in flight training there might be the same unpredictable situations as in handball. For example, if the tactical combination that was conceived was not completed, then one needs to quickly navigate and find the best completion of the attack. The stability of motor skills in handball is mainly due to vestibular stability. Precise coordination of movements is important for making shots at the goal from any position, for deceptive movements and for maintaining balance in conditions of unstable body positions that occur in the fight for the ball with an opponent. The goalkeeper's ability to accurately estimate the distance and speed of a player helps to give him an accurate pass into the lead [13].

It is very important that all these qualities have a positive impact on the professional activities of aviation specialists. During the training, an aviation specialist, as well as a handball player, faces difficulties that he must overcome in order to achieve a certain result. He performs complex actions that require a lot of willpower. At the same time, willpower is characterised by a whole complex of volitional qualities: discipline, perseverance, purposefulness, courage, determination, endurance, self-control, etc. Overcoming difficulties, cadets are guided by certain motives, motives that form the moral and intellectual basis of their volitional actions. The task of psychological training is to create a state of certain mental readiness by maximising the conditions of the educational and training process to the conditions of further work of cadets, form the correct orientation of the individual, the necessary qualities of character, develop intelligence, positive emotions.

The development of physical qualities of future aviation specialists by handball methods

Modern handball develops by increasing the intensity of the game. Increasing the pace of the game requires increasing the volume and intensity of training loads. In the process of competitive play, the body of handball player is affected by large loads, which require a certain motivation of the functional capabilities of the body and establish high requirements for the physical fitness of the athlete. Systematic handball classes develop such basic physical qualities as strength, endurance, speed, agility, and flexibility, as well as increase the body's resistance to the effects of many other factors (hypoxia, vestibular irritation, fatigue), which should be considered in the context of approximate training.

First of all, the practice of training proves that strength is the main quality of an athlete. The development of two other qualities depends on it: speed and endurance, as a result of which the development of strength should be preferred. To do this, the exercises that affect the muscles with maximum load should be used. Those exercises that load the muscles to a lesser extent, even if repeated, do not give the desired effect. For the most part, they develop

strength endurance, not strength. However, they can partially develop strength if performed at high speed. However, their effectiveness decreases with the increase in the number of repetitions. The best way to develop strength is to increase the load by gradually increasing the number of repetitions and the pace of exercises performed [14]. To achieve these goals, it is recommended to use the following exercises (Fig. 1):

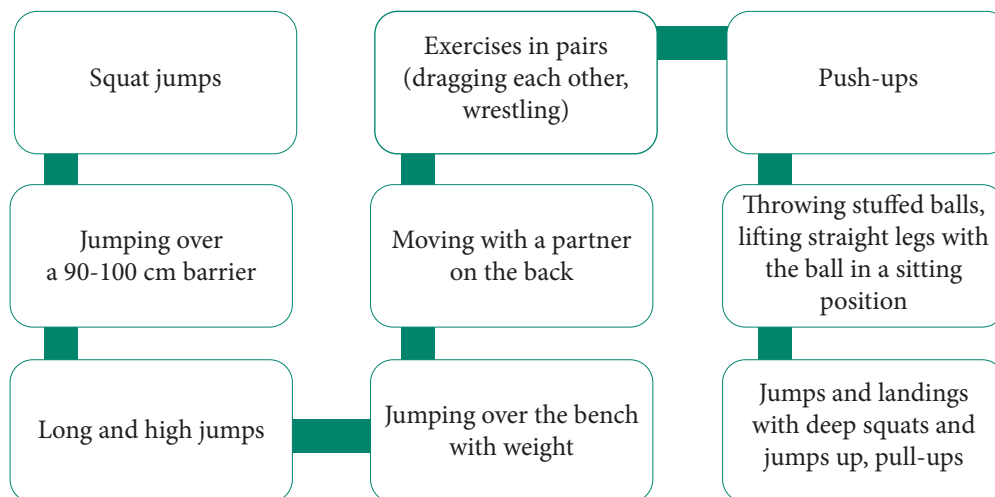


Figure 1. Examples of exercises for developing strength during handball training

It is worth noting that strength training should be carried out after high-speed exercises. Modern trends in the development of handball are aimed at significantly improving the speed of performing game techniques, both in attack and defence. By speed qualities, the ability to perform motor actions with a certain efficiency for a minimum time is meant. To improve the speed abilities of a handball player, a game method is used that affects the

speed of motor reaction, the speed of movements and actions associated with the perception and processing of information, followed by a quick response. The main factor in speed training is the maximum intensity of movement. Speed development exercises are performed at the beginning of a training session, after a warm-up session [13]. As an example, training aimed at developing speed may consist of the following exercises (Fig. 2):

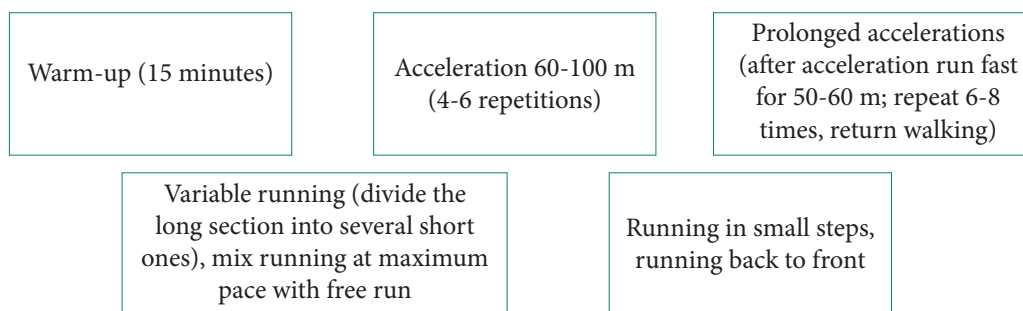


Figure 2. Examples of speed development exercises during handball classes

At the same time, one of the main qualities of a handball player is endurance, since he must be ready for a long-term action with constant effectiveness. This ability is characterised by the time (during cyclic loads) or the number of repetitions (during acyclic loads), during which the maximum intensity of movements is being developed. Endurance is limited by other qualities of the player that determine their training, especially by strength and speed. The overall endurance of an athlete is characterised by his ability to perform movements for a long time, in which a large number of muscles are involved, as well as the state

of his cardiovascular and respiratory systems. It develops continuously, evenly and for a long time, but with relatively few intense loads. Mostly, long-term running at a given pace and running at a variable speed are used for this purpose [15]. High-speed endurance is a crucial quality for a handball player, the lack of which leads to a decrease in running speed and jumping height, slowing down the point shots, loss of accuracy, and so on. An approximate training session lasting 1 hour and 30 minutes, aimed at developing high-speed endurance, consists of the following exercises (Fig. 3):

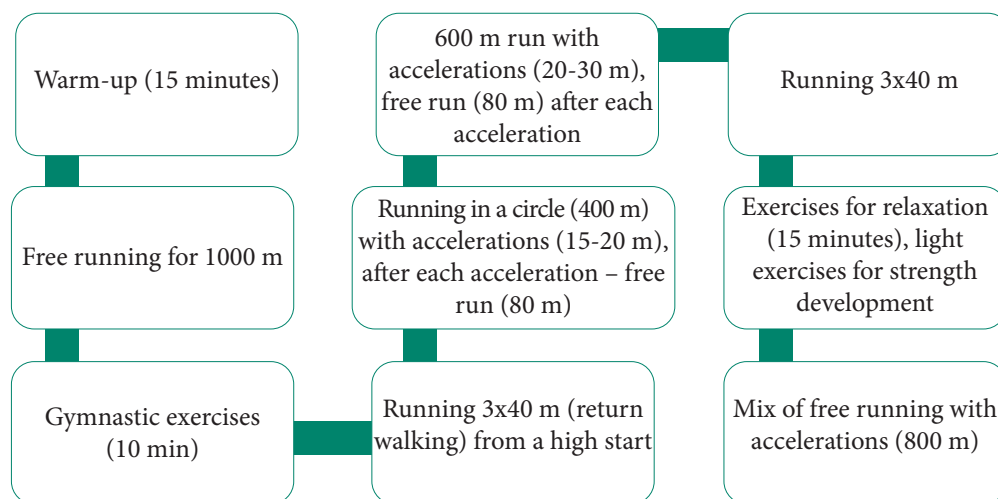


Figure 3. Approximate training for the development of high-speed endurance

Finally, the focus should be on developing agility as the ability to perform complex coordinated movements, quickly go from one movement to another, and the ability to control the actions depending on changing conditions and new tasks. General agility is developed through acrobatic exercises (somersaults, flips, handstands), exercises with gymnastic apparatus and on gymnastic apparatus, various types of wrestling, running with obstacles and cross-country, and so on. A handball player must solve complex game tasks during the game, which implies the presence of a certain speed of thinking and the ability to quickly implement the decision made in a complex of movements. In the game, some actions require special mobility and game agility due to the complexity of performing in unusual conditions. These include: special shots in a jump (with a half-turn, with a jump), shots with a jump on target (with an evasion), shots in a fall after turns, passes and throws with the left hand (for “right-handed”), processing inaccurate handoffs, acrobatic feints of the goalkeeper and defensive players, and so on.

Finally, it is advisable to consider such a physical quality of a handball player as flexibility. “Flexibility” is usually understood as the ability to perform movements with a large amplitude. Since most actions of handball players are performed with a significant range of motion, sufficient flexibility of the spinal column and joint mobility are important for a handball player. Exercises that develop flexibility should be used during each session – they can be added to an independent part of the workout, lasting 5-10 minutes. More effective development of flexibility occurs if these exercises alternate with strength exercises. The development of flexibility in the joints should be gradual, and the performance of movements – with the maximum amplitude and with sufficient preliminary warm-up.

“Exercises are performed in series of 16-20 times, usually at a dynamic pace, the movements are smooth or swinging, at the extreme point of the amplitude, additional efforts are applied. Flexibility exercises are performed with gymnastic apparatus (gymnastic stick), with a partner, with or without weights” [13].

CONCLUSIONS

Sports games, such as handball, in higher education as an integral component of physical training are one of the most important components of the development of professionally important qualities of future aviation specialists, as well as ensuring a healthy lifestyle, improving the level of performance, maintaining and strengthening health. It is worth noting that during the development of professionally significant qualities in cadets of aviation higher educational institutions, it is first of all important to pay enough attention to the education of those qualities that lag behind in their development, on the one hand, and on the other – those that are related to the specifics of future professional activities and are important for improving labour productivity. Thus, reasonable, appropriate, and constant use of handball classes helps to fully form such physical qualities in cadets as strength, endurance, speed, agility, and flexibility, psychological qualities as emotional stability and balance, and also allows the teacher to diversify classes, increase its emotional climate and density. All of the above proves that the physical training of cadets of the flight academy using game sports, in particular handball, is an active method of carrying out their professional training. The authors of this study see the *prospects for further research* in improving the existing comprehensive training programmes, the use of which will contribute to improving the level of development of professionally important qualities of cadets of the academy.

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Формування професійно важливих якостей курсантів засобами гандболу

Анотація. Основою надійності професійних знань, навичок і вмінь є високий рівень розвитку фізичних, психологічних і психофізіологічних якостей, які формуються в процесі вивчення в льотній академії комплексними засобами, одним з яких є фізична підготовка. Цілеспрямовані заняття фізичною підготовкою дають змогу не лише поліпшити стан здоров'я та емоційний тон, а й розвинути професійно важливі психофізіологічні якості. Мета дослідження – теоретично обґрунтувати значення гандболу для формування професійно важливих якостей майбутніх фахівців льотної академії. Для досягнення мети були використані методи теоретичного аналізу, синтезу, узагальнення наукової та навчально-методичної літератури з проблеми дослідження. У статті розкрито значення гандболу у формуванні фізичних і психофізіологічних якостей курсантів, а також представлено вправи й орієнтовані тренування для розвитку фізичних якостей майбутніх фахівців, які освоюють авіаційні спеціальності. Визначено особливості впливу гандболу на всебічний розвиток особистості курсантів. З'ясовано, що систематичні заняття гандболом, розвивають у курсантів основні фізичні якості, важливі для професій операторського профілю психофізіологічні якості: емоційну та вестибулярну стійкість; обсяг, розподіл і переключення уваги; здатність екстраполювати розвиток ситуації; здатність швидко приймати рішення й цілу низку інших якостей, які визначають успіх у професійному навчанні курсантів академії. Обґрунтовано, що гандбол має велике значення для всебічного розвитку майбутніх фахівців, а також їхніх професійно важливих якостей. Підтверджено, що фізична підготовка курсантів льотної академії з використанням ігрових видів спорту, зокрема гандболу, є активним методом успішного здійснення їхньої професійної підготовки. Отримані результати слугуватимуть перспективою емпіричного вивчення актуальності проблеми

Ключові слова: фізична підготовка, фізичні якості, спортивні ігри, вольові якості, тренування

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Modern Information Technologies in the Process of Physical Education in Universities of Ukraine

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Abstract. The relevance of the study is determined by the need to update the methods of teaching physical culture in universities based on information technologies in accordance with the socio-cultural conditions of the present time. The purpose of the study is to substantiate the need to use information technologies in physical education in Ukrainian universities, followed by the development of a conceptual model based on the experience of foreign higher education institutions. The research of the selected problem was conducted in two stages based on systematic and innovative approaches using the method of analysis, synthesis, generalisation, systematisation, and comparison. The paper identified the need to introduce information technologies in the educational process of physical culture in universities based on the research of Ukrainian and foreign authors. The article analysed and compared the practices of using information technologies in physical education classes in universities of European countries, such as Spain, Ireland, Portugal, the Russian Federation, as well as Asian countries, among which are Japan and China. It was found out that the introduction of informatisation tools in the educational process of physical education in Ukrainian universities is accompanied by certain difficulties, and at the same time, the actualisation of the search for solutions to these problems was identified. The main ways of introducing information technologies in physical education classes in leading Ukrainian universities were considered. Based on the experience of Ukrainian and foreign universities, a conceptual model of information technologies usage in the educational process of physical education was developed, which is based on improving individual and collective skills using a universal mobile application and fitness games. The value and prospects of further research lie in creating a universal mobile application and implementing the author's methodology in practice

Keywords: physical development, conceptual model, physical competence, informatisation, digital technologies, university

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INTRODUCTION

The modern educational and professional paradigm provides for comprehensive and competency-based growth of each individual in accordance with specific conditions. Thus, the Law of Ukraine "On Physical Culture and Sport" recognises physical culture as "one of the most important factors of comprehensive personal development" [1]. However, today there is a problem related to the involvement of higher education students in physical education. First of all, this is due to the lack of motivation among students and the negative experience gained during physical education lessons at school. As a result, the teacher of a university faces the task of not only analysing the students' motives to engage in physical culture, but also forming appropriate learning

conditions that will contribute to the growth of interest and involvement of higher education students in the educational process itself. In accordance with this, there is an increase in the relevance of the use of information technologies in pedagogical practices, which are becoming almost a key means of encouraging students to physical education.

Taking into account a number of studies by Ukrainian and foreign scientists, the problem of using modern information technologies in the process of physical education in universities has remained relevant for a long time. For example, N. Chekmarova and I. Cherkasov stated that "one of the main forms of education in modern pedagogy is the search for effective approaches and the introduction of new

innovative technologies in physical education classes" [2]. For his part, Yu. Zabyako in his research considered innovative methods of teaching physical culture, including the use of multimedia, integrated, game, collective technologies, as well as technologies for individualising the learning process [3]. At the same time, it is advisable to refer to the best practices of N. Hladun [4]. According to the author, "the use of information and communication technologies in physical education classes is an unconventional approach to teaching, which allows increasing the amount of material learned since it affects the consciousness, feelings, and actions of the student" [4]. A. Sushchenko notes that "the use of information technologies increases labour productivity, helps to focus on the main points of educational material, and also reduces unproductive costs for information search and processing time" in physical education classes [5]. At the same time, the results of the scientific research of N. Chukhlantseva [6] are interesting for the author's study. The researcher believes that "the most popular computer technologies in the field of physical culture are teaching tools that improve the quality of teaching and control, testing programmes, and control of the training process, as well as applied software products that are aimed at processing information, for example, during competitions" [6].

At the same time, it is worth paying attention to the results of research by foreign scientists on the chosen issue. Thus, the Chinese scientist S. Wang, using the methods of scientific analysis, questionnaires, and mathematical statistics, proved the need to create a local network called *Campus Network* within a university in order to improve the process of teaching physical culture [7]. Thus, the specified network provides open access to any necessary information, which further contributes to improving the competence of both teachers and students [7]. For his part, the scientist X. Zhao substantiated the advantages of using multimedia technologies in physical education classes, among which are: optimisation of the physical education environment, improvement of aesthetics and development of students' feelings, as well as enrichment of educational material and stimulation of interest in learning [8].

As is evident, the problem of technologisation in the process of physical education in universities requires clear methods of solution, which determines the need for scientific research. Therefore, *the purpose of the work* is a substantiation for the need to introduce modern information technologies in the process of physical education in Ukrainian universities with the subsequent development of a conceptual model based on the experience of foreign universities. To achieve this purpose, the *following tasks* were defined:

1. To analyse the experience of introducing information technologies in the process of physical education in foreign universities based on scientific research by foreign authors.
2. To describe the state of introduction of information technologies in physical education classes in Ukrainian universities.
3. To form author's conceptual model of using information technologies in physical education of students.

MATERIALS AND METHODS

The study of the problem of using modern information technologies in the process of physical culture in Ukrainian universities was conducted in two stages. The first stage analysed the experience of foreign universities in order to further implement it in Ukrainian universities, as well as the experience of Ukrainian universities in order to identify key motives and problems of using information technologies during physical education classes. The second stage provided for the creation of author's conceptual model of using information technologies in the educational process of students' physical culture based on the data obtained at the first stage of the study.

In general, in the process of studying the chosen issue, the author used such general scientific theoretical methods as analysis, synthesis, comparison, generalisation, and systematisation. The methods of analysis and synthesis were used to study scientific papers over the past 3-5 years of Ukrainian and foreign researchers who studied the problem of using information technologies in the process of physical education of higher education students in Ireland, Portugal, Spain, the Russian Federation, Japan, China, and Ukraine, in particular. The comparison method helped to correlate the experience of European and Asian countries, as a result of which the difference in methods of teaching physical culture, as well as the use of information technologies in the educational process, was clarified. In order to summarise the obtained data after the analysis and synthesis of the processed literature, the method of generalisation was used, based on which a conceptual model for the use of information technologies in physical education classes in universities was formulated. The method of systematisation was used to reproduce the ways of using information technologies in the process of physical education of Ukrainian universities such as Kharkiv State University of Food Technology and Trade, National Technical University "Igor Sikorsky Kyiv Polytechnic Institute" and Prydniprovs'kyi State Academy of Physical Culture and Sports.

Based on a systematic approach in the combination of two components, the author's methodology for applying information technologies in the process of physical education of students was formed, which provides for the improvement of individual and collective physical competence skills through information tools, including a universal mobile application with an individual physical development programme and fitness games. The innovative approach in the research process is focused on the idea of creating a universal mobile application for the purpose of using it during physical education classes in a university, which will allow students to physically improve themselves both during university classes and after completing physical education training course.

As a theoretical basis for the study of the chosen problem, a legislative and regulatory document was used, such as the Law of Ukraine "On Physical Culture and Sport" [1], which made it possible to define physical culture as one of the key aspects of versatile personal development.

RESULTS AND DISCUSSION

Information technologies in the process of physical education in universities: World experience

It is worth starting with the fact that the experience of introducing information technologies in the process of physical education in universities abroad is much more powerful than within the Ukrainian space. This is due to a number of reasons, yet, first of all, it concerns the economic and financial prerequisites that make it possible to provide certain education institutions with proper equipment and qualified specialists. At the same time, even taking this aspect into account, there is a need to analyse the practices, which will form a proper idea of the general state of informatisation of the educational process in foreign countries and help identify key methods of teaching physical education in order to apply them in Ukrainian education. In this context, it is advisable to refer to the positive experience of using information technologies in physical education classes in such countries as Ireland, Portugal, Japan, China, the Russian Federation, and Spain.

First of all, it is advisable to consider the educational practices of Ireland. In recent years, in Ireland, the use of digital and information technologies as a means of teaching and learning within physical education has increased significantly, as S. Crawford and P. Fitzpatrick draw attention to in their research. [9]. At the same time, the authors describe an interesting experience of informatisation of students' physical education, which involves the use of portable iPod media players. Owing to electronic media, students not only form their digital competence, but also learn the necessary material much faster and enjoy physical activity. In addition, portable media players help to adapt physical activities to certain age and physical characteristics of each individual student [9]. In this context, it is worth mentioning the experience of implementing information technologies in physical education classes in Portugal. According to J. Escola, modern methods of teaching physical culture do not meet the requirements of society, as a result of which there is a need for radical renewal [10]. That is why in Portugal, physical education teachers are encouraged to use video equipment, interactive whiteboards, and Web 2.0. projects, which significantly expand the possibilities of receiving, processing, and transmitting information [10].

At the same time, an extremely powerful base of empirical research on the introduction of information technologies in physical education classes is concentrated in Spain, based on which it is possible to trace the positive and negative trends of the country's experience. It is worth starting with the fact that the process of introducing information technologies involves overcoming certain problematic aspects. Thus, according to the results of a questionnaire of teachers conducted by A. Villalba and M. Gonzalez-Rivera, the majority of higher education workers recognise the necessity and expediency of using information technologies in physical education classes, however, in the process of mastering informative competence, teachers face a number of problems [11]. First of all, this refers to spending time on physical activity, lack of resources, lack of time, improper use

of knowledge or insufficient level of information awareness, and also technical problems [11]. For their part, E. Crisol Moya and M. Caurcel Cara conducted an empirical study at the University of Granada to find an appropriate solution to the problem of teaching physical culture in higher education institutions [12]. Thus, the researchers, following on from the results of a students' questionnaire, substantiated the expediency of using active methodologies during physical education classes, and also proposed a model of structural balance that establishes the relationship between three components: organisational modalities, methodological features, and an assessment system, which allows both properly organising the process of physical education, and maximising students' interest in physical culture [12]. At the same time, one of the methods for solving the problem of using information technologies in physical education classes was proposed by Spanish researchers R. Cuberos, M. Sanchez, and F. Ortega [13]. Information and communication technologies form the learning process, so it is extremely relevant to use fitness games in physical education classes [13]. This type of activity allows mastering basic physical skills, form students' general ideas about individual sports, and motivate higher education students to be physically active. It is also worth noting that in Spanish universities, special attention is focused on the use of modern information technologies during physical education classes for students with disabilities [14]. In this case, according to J. Fernandez-Batanero and B. Sanudo, the role of information technologies is particularly important, since they make physical education classes accessible for students with disabilities in accordance with the physical characteristics of each student [14]. As is evident, the experience of introducing the latest technologies in the educational process of physical culture in universities in Spain has its own problematic aspects, however, in this context, it is necessary to take into account empirical research that encourages changes.

In addition, in the process of studying the practices of using modern information technologies in the process of physical education in universities, it is advisable to refer to the experience of the Russian Federation. Thus, the St. Petersburg State University of Film and Television developed a distance learning technology based on the Moodle system with a course of lectures and assessment of students' academic performance, as well as provided digital practical recommendations on physical self-education based on digital textbooks and video material [15]. At the same time, in Udmurt State University, information technologies in the field of students' physical education are used to form a system of sports training, to organise and manage sports events, as mechanisms for organising theoretical and practical work, as functional and psychological tests, and as methods for monitoring the physical condition of students [16].

Taking into account the socio-cultural differences between East and West, it is worth considering separately the Asian experience of introducing information technologies in physical education classes in universities on the example of Japan and China. Thus, the scientists from the Tokyo

University of Liberal Arts described the peculiarities of using information and communication technologies, the essence of which is to move away from behavioural physical education training to constructivist [17]. This approach focuses on the use of information technologies not to improve the performance of movements during physical education, but to increase awareness of the importance of physical education classes and encourage the creation of new ideas through exercises [17]. In general, information technology was classified according to three parameters: activity visualisation settings, problem solving settings, and evaluation settings. At the same time, N. Suzuki and S. Okuma emphasise the use of information technologies in combination with others, which will allow establishing a direct link between needs and awareness [17]. Turning to the experience of Chinese universities, it should be noted that the level of information technologies usage in physical education classes was quite low [18]. The Scientist Q. Chen conducted an empirical study, based on which it was found that, for the most part, physical education teachers use information technologies only during “open” lessons, that is, in fact, information technologies appear as a means of meeting teachers' own needs, and not one of the key methods of teaching students [18]. Thus, the approach to the use of information technologies in the educational process was changed, focused on interaction between the teacher and the student, as well as increasing the volume and level of availability of information [18].

Thus, as is evident, the positive trends in the world experience of using information technologies in physical education classes in universities indicate a successful solution of all problematic aspects in the very process of their implementation. At the same time, it is advisable to note the characteristic differences between the implementation methods of the countries of the European and Asian regions.

Based on cultural and ideological features, it is advisable to point out that the methods of introducing information technologies in Western universities are focused on the very fact of attracting students to physical culture, while in universities of Eastern countries, attention is aimed at increasing the level of students' awareness. Such an analysis of world practices allows forming author's conceptual model of the use of information technologies in the process of physical education in Ukrainian universities.

Ukrainian methods of applying information technologies during physical education classes in universities

Modern cultural, social, and economic conditions of the Ukrainian space have led to the actualisation of the problem of using information technologies in the educational process, in particular during physical education classes in universities. At the same time, the actualisation of this problem is accompanied by a number of dilemmas, the lack of solutions to which suspends the introduction of information technologies. In this context, it is advisable to turn to the practices of using information technologies in physical education classes in specific universities, including Kharkiv State University of Food Technology and Trade, National University of Physical Education and Sport of Ukraine, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” and Pridneprovsky State Academy of Physical Culture and Sports.

Thus, turning to the methods of teaching physical culture at the Kharkiv State University of Food Technology and Trade, it is advisable to point out that the use of information technologies during physical education classes in a university is solely an auxiliary tool [19]. At the same time, there are three areas of use of information and communication technologies in the educational process of Kharkiv State University of Food Technology and Trade (Fig. 1):

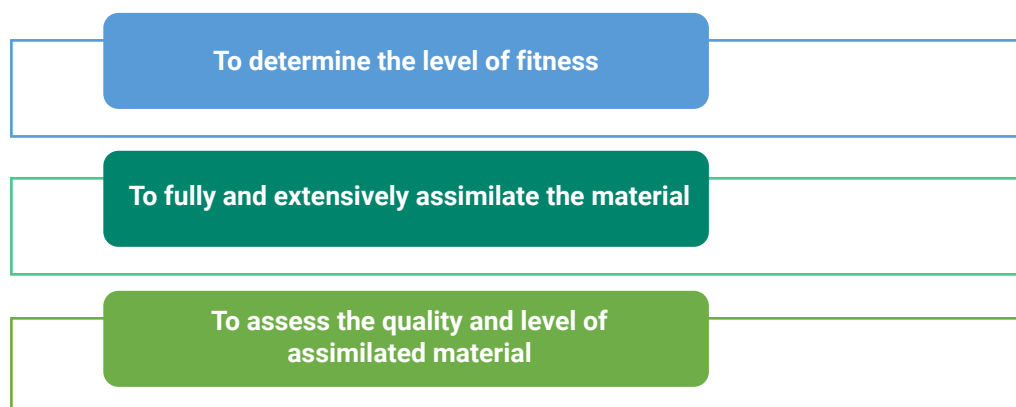


Figure 1. The areas of using information technologies during physical education classes at Kharkiv State University of Food Technology and Trade

Source: compiled by the author based on data [19]

At the same time, among information and communication technologies, the most used in physical education classes are Internet resources, presentations, and videos to provide visibility, as well as the use of interactive whiteboards and software [19]. In addition, it is worth paying attention to the use of information technologies at the National University of Physical Education and Sport of Ukraine. According

to the specialised field of the university, its experience in implementing information technologies in the process of physical education differs significantly from the practices of other Ukrainian education institutions. First of all, this is due to the use of hypermedia information environments, computer programmes, including “Psychophysiological diagnostic system” and “Fitball training”, as well as automatic

surveillance systems, which should include Expert Vision Analysis, Motion Analysis Corp., Vicon, CODA, etc. [20]. One way or another, automatic surveillance systems make it possible to properly track and record movements in real time, and computer programmes significantly improve the process of practicing certain sports [20]. In this context, it is interesting to consider the experience of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic

Institute". The characteristic feature of using information technologies during physical education classes in a university is to create an educational and control programme that is aimed at using both full-time and distance learning. At the same time, the training envisages the use of the computer programme "Psychophysiological diagnostic system" [20]. In general, the training and control programme consists of two blocks: training and controlling (Fig. 2).

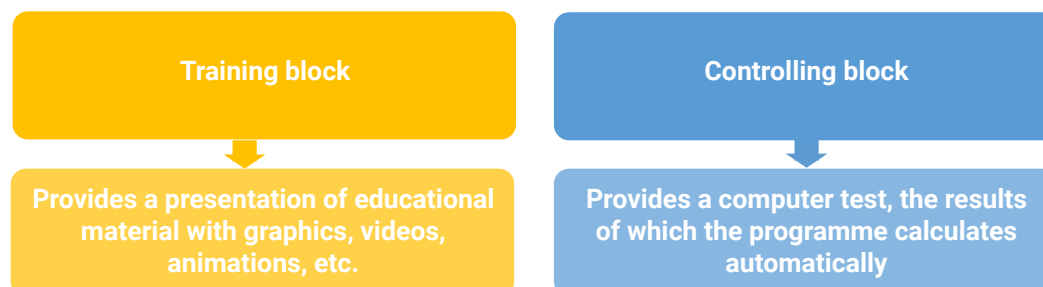


Figure 2. The scheme of the training and control programme for physical education

Source: developed by the author based on source [20]

As is evident, the educational and control programme is aimed at mastering theoretical material, and at the same time, the programme presents independent work that allows choosing the desired topic and implement the knowledge gained in practice [20]. The emphasis on the

use of computer programmes in the educational process of physical education is also made in the Pridneprovsky State Academy of Physical Culture and Sports [21]. Thus, among the main computer software, the following programmes were found (Fig. 3):

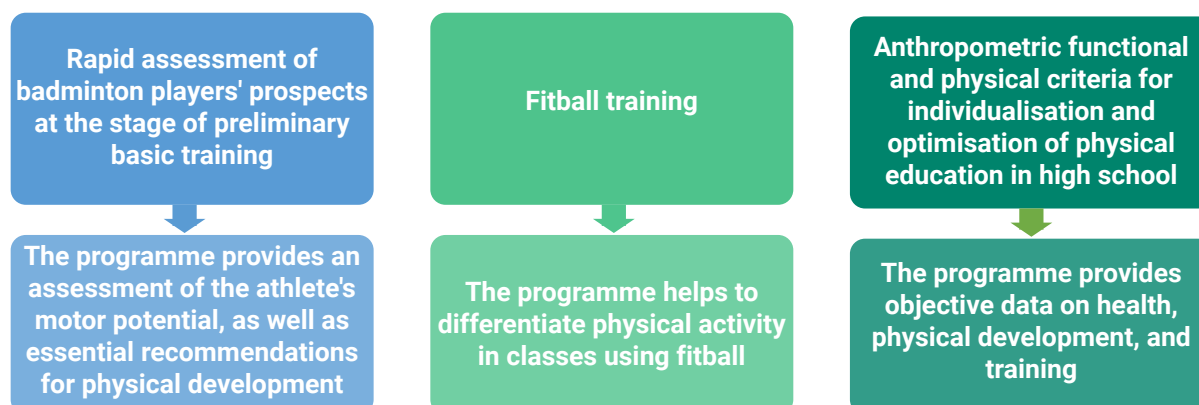


Figure 3. Examples of computer programmes for using in physical education classes in Pridneprovsky State Academy of Physical Culture and Sports

Source: developed by the author based on source [21]

Finally, the level of information technologies usage during physical education classes in Ukrainian universities differs significantly, however, the general characteristic is still the focus on updating the educational process of physical culture by means of information technologies. Thus,

based on the analysed world and Ukrainian experience in implementing information technologies, the authors offer the conceptual model, which provides for the use of information technologies both for the development of individual and collective components of physical competence (Fig. 4).

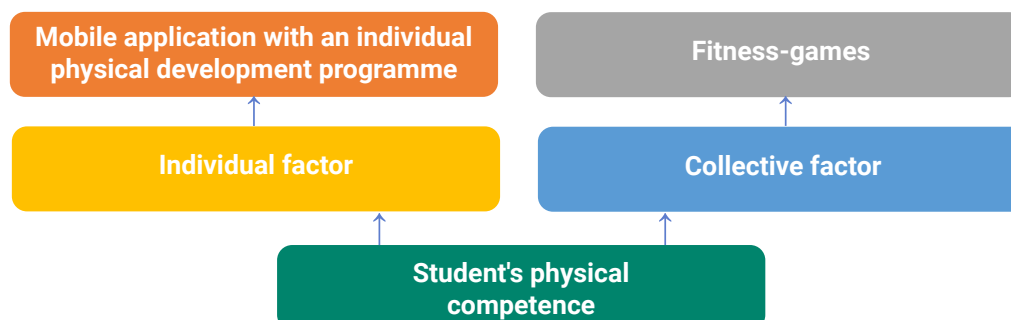


Figure 4. The conceptual model of using information technologies in physical education of university students

Source: compiled by the author

As is evident, the conceptual model of using information technologies in physical education of university students is aimed at forming students' physical competence based on the development of individual and collective factors. At the same time, each of these factors involves the use of specific information technologies, which, in general, will ensure the equal development of all skills.

First of all, the individual factor should be mentioned. Ensuring the proper development of individual skills requires a special approach that focuses on using the mobile app. It should be noted that the modern information space contains many mobile applications that, in one way or another, provide assistance in the process of physical self-education. However, each of these applications is characterised by a separate specialisation, which leads to difficulties in the process of physical training. For example, a mobile app *Nike Training Club* is used for training with different physical levels, at the same time, a mobile application *Fitness centre* is used for determining the level of physical fitness, as well as setting individual goals with a focus on personal characteristics. On the other hand, a mobile app *Calorie counter*, the purpose of which is to control the calories consumed, track the nutrition system, and so on. As a result, it is evident that there is a need to create a *universal mobile app* which will perform the functions of both a "fitness trainer" and a nutritionist. Thus, it is advisable to use the universal mobile application in physical education classes in universities, which will allow choosing individual training programmes for each student in accordance with their wishes and needs. At the same time, it is worth adding that the course of physical education in a university should begin with a medical examination of students, according to the results of which the physical education teacher will set up individual programmes for physical development and nutrition systems in the universal mobile application of each student.

For its part, the collective factor involves the development of general ideas about certain sports, as well as communication and teamwork skills. The development of the communication factor is possible using modern information and digital technologies, such as fitness games. First of all, it is worth noting that the use of fitness games allows engaging in any sport, regardless of the place, weather conditions, physical characteristics, etc. In addition, fitness games provide the possibility of team game based on an interactive training method. Either way, the physical activity during fitness games is much less than during conventional classes in certain sports, according to which the teacher will have the opportunity to ensure the proper level of physical activity of those students whose health condition requires a light level of physical activity. At the same time, it is advisable to use fitness games as auxiliary means of physical education

classes and, if possible, combine them with conventional sports. Thus, the conceptual model of using information technologies in the process of physical education in universities will allow students to consciously approach physical education classes, choose individual programmes of physical and nutritional development, which will significantly motivate them to physical self-improvement. At the same time, the use of a universal mobile application will provide students with the opportunity to continue physical self-education even after completing an academic discipline at a university.

CONCLUSIONS

The research considered the problem of introducing modern information technologies in the process of physical education in Ukrainian and foreign universities. First of all, the paper based on scientific research substantiated the need to use information technologies during physical education classes for university students. At the same time, special attention was paid to the experience of using information technologies in foreign universities in countries such as Ireland, Portugal, and the Russian Federation. The experience of Spanish universities was interesting for the author's research, the essence of which was to create a model of structural balancing, as well as the use of fitness games during physical education classes. At the same time, for comparison, the experience of Asian countries, such as China and Japan, was considered, which allowed stating significant differences in the approaches of teaching and implementing physical education information technologies in Eastern and Western universities.

In addition, the study of the chosen problem required a separate analysis of methods of introducing and using information technologies in the process of physical education in Ukrainian universities. Thus, the described the experience of Kharkiv State University of Food Technology and Trade, National University of Physical Education and Sport of Ukraine, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" and Pridneprovsky State Academy of Physical Culture and Sports. Finally, based on the analysed practices of Ukrainian and foreign universities, a conceptual model of the use of information technologies during physical education classes for university students was proposed, the essence of which is to form physical competence based on individual factors (mobile application with an individual physical development programme) and collective factors (fitness games) by means of information technologies.

The author sees the prospects for further research in the development of a universal mobile application and the implementation of the conceptual model in practice.

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Сучасні інформаційні технології в освітньому процесі з фізичного виховання у закладах вищої освіти України

Анотація. Актуальність дослідження визначається потребою в оновленні методів викладання фізичної культури в закладах вищої освіти на основі інформаційних технологій відповідно до соціокультурних умов сьогодення. Метою роботи є обґрунтування необхідності застосування інформаційних технологій під час фізичного виховання студентів українських вищих навчальних закладів з подальшим розробленням концептуальної моделі, спираючись на досвід зарубіжних закладів вищої освіти. Дослідження обраної проблематики відбувалося в два етапи на основі системного та інноваційного підходів з використанням методу аналізу, синтезу, узагальнення, систематизації та порівняння. У роботі було визначено необхідність впровадження інформаційних технологій в освітній процес з фізичної культури здобувачів вищої освіти на основі праць українських і зарубіжних авторів. Проаналізовано та здійснено порівняння практик використання інформаційних технологій на заняттях з фізичного виховання у вищих навчальних закладах європейських країн, таких як Іспанія, Ірландія, Португалія, Російська Федерація, а також азійських країн, серед яких знаходимо Японію та Китай. З'ясовано, що введення засобів інформатизації в освітній процес з фізичного виховання в закладах вищої освіти України супроводжується певними труднощами, водночас, виявлено актуалізацію пошуку вирішень зазначених проблем. Розглянуто основні шляхи впровадження інформаційних технологій на заняттях з фізичного виховання в провідних вищих навчальних закладах України. Спираючись на досвід українських і зарубіжних закладів вищої освіти було розроблено концептуальну модель використання інформаційних технологій в освітньому процесі фізичного виховання студентів, в основі якої лежить вдосконалення індивідуальних і колективних навичок за допомогою універсального мобільного застосунку і фітнес-ігор. Цінність і перспективи подальших досліджень полягають у створенні універсального мобільного застосунку та впровадженні авторської методики на практиці

Ключові слова: фізичний розвиток, концептуальна модель, фізична компетентність, інформатизація, цифрові технології, вищий навчальний заклад

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The Features of Modern Students' Internal Motivation for Physical Exercises

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Abstract. The modern lifestyle contributes to the reduction of motor activity and muscle energy consumption in combination with neuropsychological overload. Based on this, the main purpose of the study was to identify the features of the modern students' internal motivation to engage in physical exercises. To achieve this purpose, the survey methods were used among 75 students of the Yancheng Institute of Technology, as well as the method of analysing the information received. The study identified the reasons for the lack of interest in sports on personal initiative, among which it is possible to highlight the lack of a clear example of parents, health problems, the programme of the training course, etc. It was determined that half of the surveyed students have a passive attitude to physical exercise and sports in general, since they attend physical education classes from time to time. Also, the work identified the indicators of motivation (depending on the year of studies). It was established that for the first-year students, the environment is of great importance (52% of respondents), and for the third-year students – a healthy lifestyle (54% of respondents). Using the hierarchy analysis method, seven most significant motivational criteria were selected, which allowed determining that communication motives are the most important. This is due to the fact that adaptation in the team is of primary importance for junior students. The results of the experiment indicate that there is an indissoluble connection between internal and external factors of motivation in physical exercise. Only an integrated approach contributes to the inner interest of the younger generation. The results of the paper are of primary importance for university teachers during the preparation of curricula, which will contribute to the interest of students in the lesson

Keywords: physical activity, communication, hierarchy analysis method, questionnaire, sport, healthy lifestyle

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INTRODUCTION

Internal motivation is an important component of human activity on their own initiative and based on their own choice [1]. Motivation presupposes energy, time, talent, will, and desire to get a successful job. Students require especially much effort to motivate them for a particular activity. Physical health problems are an important component of modern students since the exacerbation of chronic diseases of the cardiovascular system, back problems, joint pain, rapid fatigue is directly related to the lack of physical exercise. In addition, environmental and social problems affect health of the younger generation. The solution to this problem can be systematic physical education, which requires the psychological determination of students. Regular physical

education classes do not solve this problem. Some students attend classes for their physical development, others – for the credit. Therefore, there is a need to motivate students to a healthy lifestyle.

As is known, students are the main labour category, so their motivation in physical exercise plays an important role. Showing interest in sports is a multi-stage process, from common knowledge and skills to serious knowledge of psychology, methods of physical education, and continuous engagement in sports. At the initial stage of training, students tend to face various problems in their studies, new loads and environments [2-4]. Physical activity decreases and, as a result, new health problems or old injuries arise.

This problem can be solved by regular physical exercise. The main purpose is to motivate students to regularly attend physical education classes and to independently attend additional study circles. The successful result lies in the development of a number of motivations for the advantages of physical culture. Motivation implies an awakening to action, which is created on a psychological level. The studies have shown that among the internal motives for sports, it is possible to distinguish the following [5-7]:

- working capacity;
- stress resistance;
- having a leading position in the team;
- having a high level of physical fitness;
- healthy body.

The present education includes students' skills and practices. Universities of China, including the *Yancheng Institute of Technology*, pay great attention to the interests and motivation of students in the field of physical education, study methods to increase interest with the analysis of subjective factors influencing the values, priorities, and programmes of students' physical education in various fields [8]. Separately worth noting that the increase in the level of students' motivation for physical activity is based on the use of research in social, pedagogical, and natural sciences [9-13]. The motivation of students is heterogeneous, it depends on many factors: age, gender, as well as individual characteristics. V.M. De Oliveira [6], B.J. Almagro [14] and A. Granero-Gallegos [7] identified that undergraduate students perceive physical education as an academic discipline. Senior students characterise sports from the point of view of moral and emotional aspects. Therefore, the question of how to teach students to constantly take care of their health, to interest them in regularly applying forms and methods of physical education in everyday life, remains relevant. It was established that students do not have all the knowledge about the purposes of physical education and sports in general. I.R. Granizo [5] in his work indicates that successful learning depends on the development of habits and motivational climate at school age. Also, the interest in the subject depends on the psychological component, which allows developing an internal desire for learning.

It is worth noting that it is difficult to develop internal motivation for physical duties individually during

learning, for this one needs a highly qualified teacher, a modernised system of higher education. The teacher must have a huge set of personal qualities and knowledge of the subject to develop the need for a healthy lifestyle. Therefore, the problem of physical education enters the scientific plane for determining the necessary skills, subtle features between the student and the teacher.

The paper is of practical relevance for university teachers since it analyses the main factors that affect the attendance of physical education classes and the implementation of the necessary standards. An important element in motivation is an understanding of the main priorities for students, thus, the paper conducted a questionnaire that will allow adjusting the lines in the educational process. Based on the above, *the main purpose of the work* was to study the issues of students' internal motivation to exercise, as well as to identify the most significant criteria using the method of hierarchy analysis.

MATERIALS AND METHODS

An empirical study was conducted to study students' internal motivation to exercise in 2019-2020 academic year. This study involved 75 students of the *Yancheng Institute of Technology*, who are studying in the first, second, and third years and have different levels of physical fitness. The age of the participants ranged from 17 to 20 years. To collect the data, classes were organised based on the curriculum schedule. The first class was attended by all students from the selected years (94 students), except for students who have restrictions and exemption from physical activity due to serious health problems. Data was collected from all participants in the experiment, but the results of 19 were rejected due to the lack of reliable information and the completeness of the data provided. Therefore, the remaining 75 students took part in the survey, taking into account the approval from the university management. All participants of the experiment were in the same conditions. Table 1 demonstrates respondents' characteristics. To collect the data (before the start of classes), the respondents were informed about the anonymity of the study and received instructions on how to fill out the questionnaires. All participants were divided into groups depending on the year of study.

Table 1. Distribution of respondents who took part in the survey

Year of study	Number of students
I	34
II	16
III	25
Total amount	75

In the course of an empirical study, students were offered a written survey aimed at studying the most significant motives for physical education and sports. The authors focus on the questionnaire method, since it is more productive and flexible for obtaining and processing information [15]. In the process of analysing scientific literature, survey, and questionnaire, the authors identified seven main motives for physical education in higher educational

institutions: communicative, health-improving, psychologically significant, motor-activity, competitive, cognitive-developing, creative. Later, using the method of hierarchy analysis, the most predominant personal motivations were determined. It is worth noting that the method of hierarchy analysis is a mathematical tool for system analysis and helps to identify the most significant criteria, allows rationally structuring a complex problem and conduct a comparative

assessment of alternative solutions [16]. To determine the correctness of the matrix, the consistency index was calculated (1):

$$I_y = \frac{\lambda_{max}^* - n}{n - 1}, \quad (1)$$

where λ_{max} is the geometric total value of the matrix; n is the number of criteria.

In addition, the study used the survey method to determine the attendance of physical education classes, as a result of which different data were obtained, and it was also identified that not all students are interested in physical education classes since they are undifferentiated and contain monotonous technique in repeating exercises. Thus, the answers to the question from the questionnaire “Why do students not play sports on their own initiative?” made it possible to establish the gradation of results depending on the year of studies. Among the answers were the following options:

- lack of a clear example of parents;
- health problems;
- training course programme;
- other.

At the same time, the answers to the question “What motivates you to exercise?” helped to identify interesting patterns distributed across the years of studies. The older the students, the more important a healthy lifestyle is for

them. Using the analysis method, it was found that the use of an individual approach to physical education lessons will speed up the process of adaptation, and in the future, the motivation of students. Statistical data processing was carried out based on the information received during the questionnaire. To achieve a more complete analysis, it is necessary to investigate all processes from the level of the scientific organisation to the analysis of materials. Therefore, to get the results, the data was processed using Microsoft Excel.

RESULTS AND DISCUSSION

To study the motivation of students regarding physical exercises, a questionnaire was conducted, which took place in the course of classroom work. Based on the results of a survey in 2019-2020 among students of the *Yancheng Institute of Technology*, it was identified that the majority are not motivated to engage in physical activity on their own initiative. Figure 1 demonstrates information about students' attendance at different years of physical education lessons.

Based on the diagram, it is evident that students attend physical education classes from time to time, they find another activity if there is an opportunity. This diagram once again confirms the lack of motivation in physical education lessons. The reason why students do not play sports is indicated in Table 2 based on the results of the questionnaire.

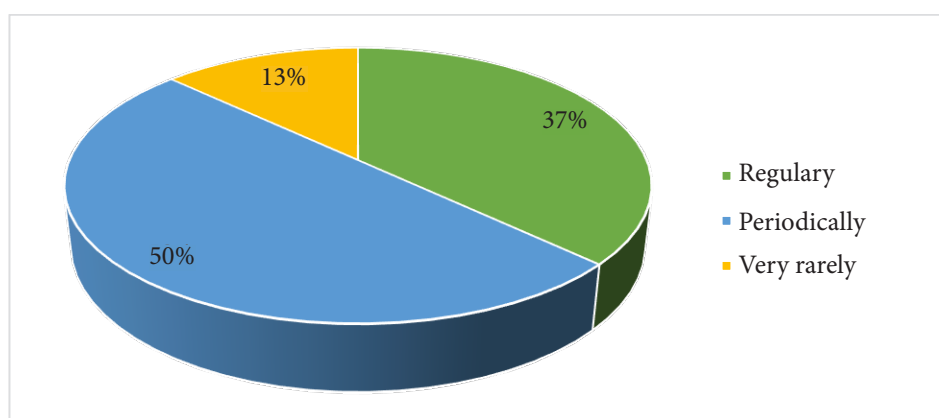


Figure 1. The results of the survey among students of the I, II, III year of studies on attendance of physical education lessons

Table 2. The statistics of answers to the question of the questionnaire “Why do students not play sports on their own initiative?”

Reason	Survey results depending on the year of studies, %		
	I year	II year	III year
Lack of a clear example of parents	53	29	37
Health problems	18	14	13
Training course programme	12	27	21
Other	27	51	31

Notes: respondents had an opportunity to choose more than one answer option

In the main category of students, the attitude to physical exercises becomes more passive. Clearly, this is due to the lack of a clear example of relatives, parents, or personal beliefs. There are also students who do not like the programme of the training course, which does not contribute to the motivation to play sports in the physical education class or in the future in optional classes, in gyms. In Table 2, the

“other” box refers to lack of desire, laziness, or other hobbies or activities. It is worth noting that third-year students are more focused on a healthy lifestyle, despite the fact that there are a number of other classes. Objective factors that affect the lack of motivation for physical exercise include health problems, as well as a significant load according to the curriculum. In this regard, it can be concluded that

there is no physical culture among students' cultural values since it does not meet the quality requirements.

At the same time, the survey provided an answer to the question "What motivates you to exercise?". An important

indicator of motivation in this case is the teacher and the closest circle of communication. Table 3 demonstrates the results of the questionnaire.

Table 3. The statistics of answers to the question "What motivates you to exercise?"

Motivation indicator	Survey results depending on the year of studies, %		
	1 st year	2 nd year	3 rd year
Teachers	23	20	17
Immediate environment (friends, parents)	52	47	28
Healthy lifestyle	18	19	54
Other	14	19	22

Notes: respondents had an opportunity to choose more than one answer option

Table 3 shows that the greatest motivation is the immediate environment and a healthy lifestyle, which occupies a significant part of the students of the 3rd year. Other indicators include appearance, the ability to lose weight, have a healthy psychological condition, a high grade, etc. But for first-year students, these indicators remain in last place (14%), because, first of all, it is important for them to adapt to the educational process, which is significantly different from the school curriculum. Physical education classes promote distraction from mental work and negative emotions. Also, physical culture contributes to the development of self-control

skills and the improvement of skills, their development. Thorough preparation of the theoretical and practical part, the absence of monotony, the emphasis on the creative component contributes to an increase in attendance at physical education lessons, and also allows improving the physical training of students and, above all, strengthening health. In addition, as one of the methods of increasing motivation, the possibility of choosing the sport that students like the most was considered, as a result of which the questionnaire provided the question "What kind of sport would you like to do?" (Fig. 2).

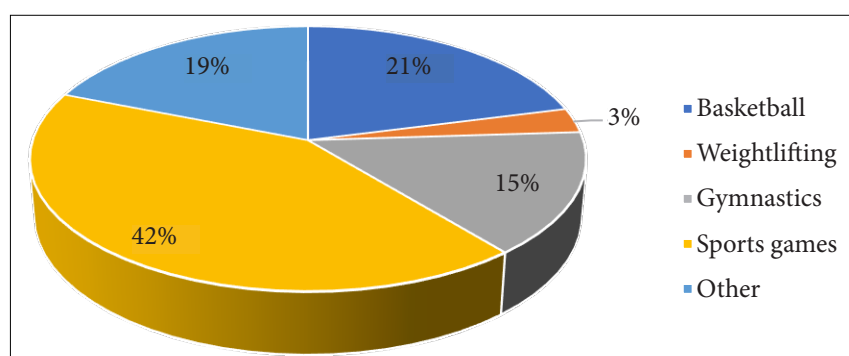


Figure 2. The statistics of answers to the question "What kind of sport would you like to do?"

Figure 2 shows that students of all years of studies prefer sports games (42%) and basketball (21%), and are least interested in weightlifting (3%).

Thus, based on the received answers of students in the course of research, 7 important motivational elements were selected, and the most significant ones were identified using the method of hierarchy analysis, which is subjective, including communicative, health-improving, motor-activity, competitive, cognitive-developing, creative, psychologically significant motives. These criteria were chosen because these elements affect the attendance of physical education classes. Health-improving motives were selected because sports are one of the main ways to promote health. Regular exercise has a positive effect on the body and helps to strengthen the immune system. Communication in the classroom promotes new acquaintances, joint activities, and group unity. Motor-activity motives are based on the performance of special physical exercises that promote the switching from mental to physical work. Competitive motives are based on the student's desire to improve their standards.

Cognitive-developmental motives are closely related to competitive ones, since they are based on the desire to achieve the best results, to learn the physical abilities of the body, to increase physical fitness. Regular sports activities provide opportunities for the development of a creative personality. Psychologically significant motives contribute to a positive impact on the mental state of students, self-confidence, the removal of emotional stress, the restoration of mental performance. Each of the seven categories is indispensable in shaping students' interest in sports. In this regard, the criteria for comparison were:

1. Communicative motives.
2. Health-improving motives.
3. Psychologically significant motives.
4. Motor-activity motives.
5. Competitive motives.
6. Cognitive-developmental motives.
7. Creative motives.

The methods for comparing paired criteria with each other are given in Table 4.

Table 4. The matrix of paired comparisons of the criteria level

Criteria	1	2	3	4	5	6	7	W*	W* of norms
1	1	4	3	2	3	1/4	5	1.90	0.21
2	1/4	1	3/4	2/4	3/4	1/7	5/4	0.54	0.06
3	1/3	4/3	1	2/3	1	1/5	5/3	0.72	0.08
4	1/2	4/2	3/2	1	3/2	1/3	5/2	1.09	0.12
5	1/3	4/3	1	2/3	1	1/5	5/3	0.72	0.08
6	4	7	5	3	5	1	6	3.85	0.42
7	1/5	4/5	3/5	2/5	3/5	1/6	1	0.45	0.05
Σ	6.62	17.47	12.85	8.23	12.85	2.29	19.08	9.27	1.00

The consistency index of the matrix according to equation 1 is:

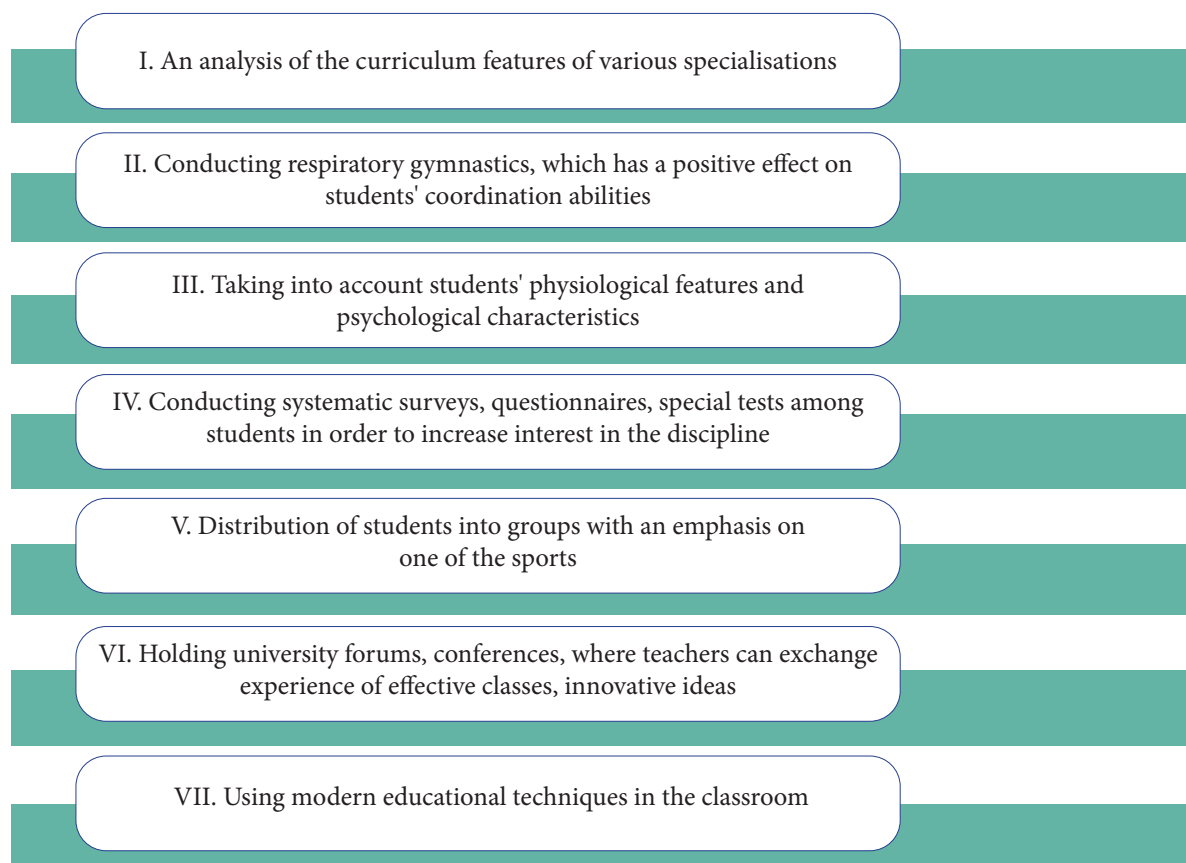
$$\lambda_{\max} = 6.62 * 0.21 + 17.47 * 0.06 + 12.85 * 0.08 + 8.23 * 0.12 + 12.85 * 0.08 + 2.29 * 0.42 + 19.08 * 0.05 = 7.21.$$

$$I_y = \frac{7.21 - 7}{6} = 0.035 < 0.2 \quad (2)$$

When comparing the communicative and health-improving motives, it can be seen from Table 4 that the communicative ones have a considerable advantage. This is because, during the first years of study, adaptation in the group and effective socialisation play an important role.

Health-improving motives are of secondary importance since not all students highlight the greatest importance of this criterion. Based on the questionnaire, the preference for a healthy lifestyle is given by third-year students. Therefore, this criterion is not relevant for all groups of students. The consistency index of the matrix is 0.035, which indicates that the matrix is correct, since the index is less than 0.2.

Based on the conducted research, to increase motivation for sports, mechanisms for upgrading the curriculum were proposed among students (Fig. 3.)

**Figure 3.** The mechanisms for modernising the curriculum to increase motivation for sports

First of all, the analysis of the curriculum features of each specialisation is important, since it will allow determining the workload of students. For example, for students of technical specialisations, it is necessary to put physical education lessons between other subjects. This will allow distributing the mental workload. The programme should

include more exercises to strengthen back and neck because due to an inactive lifestyle, problems with the musculo-skeletal system occur. At the same time, proper breathing management helps to get rid of stress and mental workload. Respiratory gymnastics plays a special role in improving the functional capabilities of the respiratory system in order

to restore free breathing. Breathing movements help to increase activity and concentration, which is one of the key elements for training; it helps to improve physical fitness. The more motor skills a student has, the easier it is to adapt to physical exertion and achieve better results when passing the standards.

It is also worth noting that taking into account the physiological features and psychological characteristics of students plays an important role in the interest in physical exercise. It is necessary to take into account the fact that there are students who have health problems (for example, seasonal allergies); or have psychological trauma associated with excess weight. These points should be clarified by a teacher or a school psychologist before forming the curriculum. Based on the information received, the curriculum for these students should be adjusted taking into account the physiological and psychological characteristics. For example, 18% of first-year students, 14% of second-year students, and 13% of third-year students have health problems. In general, the importance of conducting systematic surveys and questionnaires among students in this aspect is justified. This will allow identifying all the problems at the initial stage, as well as those that appeared during the training process. Constant monitoring of the situation will promote interest in the educational process.

In addition, the distribution of students into groups with an emphasis on one of the sports will help to maintain a competitive spirit and increase motivation. The type of sport that students prefer can be determined using a sociological survey. At the same time, holding university forums and conferences will make it possible for teachers to exchange experience of effective classes and innovative ideas. Due to quarantine restrictions, online conferences have become more popular. The most common are *ClickMeeting*, *RingCentral*, *Microsoft Teams*, *Proficonf*. It is also worth noting the use of online space, as well as the use of visual electronic and methodological manuals as modern information technologies; videos, presentations; exchange of teachers' experience through the network space, which will allow introducing new teaching methods and improving the effectiveness of classes among students.

One way or another, the problem of students' motivation to physical culture remains relevant, and therefore it would be appropriate to consider other studies of this issue to compare the data obtained. For example, the work of M. Shin and S. Bolkan [17] demonstrates that teachers' intellectual behaviour is of direct importance for the internal motivation of students. In this study, students' main needs were realised in the form of students' engagement, independence, and academic support between them. For his part, A. Gil-Arias, based on an experimental volleyball group, analysed the influence of mixed learning games on students' motivation [18]. The authors have developed a special programme since the existing one faces additional time constraints in the educational process of Spain. In addition, the study identified that the development of an innovative programme can improve students' motivational responses in physical education, and for a certain group of people, a healthy lifestyle plays an important role in

motivating them to exercise. The work of N. Román et al. determines that the motivation for a healthy lifestyle, especially a healthy diet, depends on the interethnic similarity, the culture of a particular people [19]. At the same time, the work of S. Janke [20] analysed students' motivation to study in the first years in the beginning and at the end of the year based on a questionnaire. It was established that internal motivation contributes to the orientation towards learning goals and satisfaction from the chosen specialisation, and the orientation towards material incentives negatively affects learning. The paper demonstrates the relationship between students' achievements in educational programmes over time and adaptation to the educational process. The main conclusion is that the well-being, motivation for achievements in the educational process depends on how responsibly students approach the choice of profession and curriculum. This applies not only to physical education, but also to all educational programmes. In the same study, the main focus is on the internal motivation for exercise.

In the context of research on motivation to exercise, it is worth saying that an important element that affects the preservation of health is sports. The value orientations of behaviour, the physical, psychological, and social state of society depend on it. The insignificant level of motivation to a healthy lifestyle in the younger generation is caused by the lack of a formed organisation of physical culture and health promotion. Therefore, the introduction of new organisational tools and methods contributes to purposeful and effective work to preserve and increase the love for sports. For example, the study of K. Aoyagi et al. [21] indicates that the lack of physical activity in the younger generation causes concern in the world. The paper demonstrates the factors that influence the motivation of Japanese customers. The study was divided into internal (interest in sports, responsibility) and external factors (team atmosphere, support, personal growth, national culture, etc.). These factors were established using a social survey among primary and high school students.

The paper by O. Kiremitci et al. [22] investigated the relationship between academic motivation and students of different faculties. It is identified that internal dynamics caused by differences between faculties based on their curricula, may be the cause of differentiation within the spiral of relationships. In addition, the employment conditions of graduates and the achievements of students based on sports experience affect motivation. The authors claim that external motivation is directly related to self-control, self-esteem, perception of personality, and personal significance. At the same time, in the paper "The use of information and communication technologies in the organisation of additional recreational activities of students, taking into account the type of motivation", the authors approached the study differently [23]. E.V. Gavrishova and A.S. Grachev believe that students who are focused on achieving high results show more initiative in independent physical education than the younger generation, which is focused on avoiding failures.

An important work for comparison is the work of R. Kerstajn et al. [24], in which differences in motivation

between countries were established using an analysis of variance and a correlation matrix. The results showed that motivation is influenced by the national culture, where parents play an important role. The study of the relationship between mixed synchronous learning environments, student motivation, and cognitive engagement was presented in the work of Y. Shi et al. [25]. The main purpose of this study was that teachers and practitioners should consider pedagogical, social, and technical opportunities to change the motivating and engaging learning environment. For a detailed study of complex psychological processes that are directly related to the motivation of behaviour, S. Samendinger and C.R. Hill [26] considered the relationship between the exercise pattern and self-determined exercise motivation rules. The constructed model confirmed the division of people into three different types, which have unique features, and equally affect motivation. In addition, in the paper by S. Khalilzadeh and A. Khodi [27], a study was conducted among teachers and students, where the relationship between the personal traits of teachers and the motivation of students was shown. In this work, the feedback is shown on how the motivation of students directly depends on the prepared programme, the level of teacher's knowledge and personal qualities.

As is evident, the problem of internal motivation has repeatedly become the subject of research, which indicates its relevance. On the example of the conducted empirical research and the analysed scientific works, the ways of motivating students to physical culture are considered, the use of which can increase both the interest in sports and improve the lifestyle in general.

CONCLUSIONS

Motivation for physical education is a special state of the individual, aimed at achieving fitness and efficiency. Physical education is not only the implementation of the standards established by the university, but also health care, support for psychological and emotional state, support for working capacity and stress resistance. The system of physical development should contribute to the development of

personal motivation, effective educational and professional activities, self-improvement, and self-development.

This work established how often students attend physical education classes using a questionnaire among students of the I, II, and III years of studies of the *Yancheng Institute of Technology*. It was determined that 50% of the students (out of 75 people) are periodically attending classes. The main reason for the lack of motivation in sports on personal initiative among first-year students is the lack of a clear example (53%); II year – other reasons: hobbies, lack of desire (51%); III year – the lack of an example of parents and other interests occupy practically the same percentages (37% and 31%, respectively). In addition, the work identified the sport that is most popular among students. 42% prefer sports games, and only 3% are interested in weightlifting.

The method of hierarchy analysis allowed the authors to determine seven most significant criteria that affect the motivation of students. This method is subjective, but at the same time a serious tool that contributes to the structuring of the problem and the comparative evaluation of various solutions. It was established that the most significant motivational criteria are communicative since communication plays an essential role in the development of a healthy atmosphere in the group, its unity. In addition, the paper presents the mechanisms that need to be taken into account by both teachers and students to increase motivation for physical exercise. The development and implementation of an innovative curriculum, taking into account the physiological and psychological characteristics of students, holding forums, conferences, and receiving feedback contributes to the motivation to engage in physical exercises.

This study describes the important components that affect the motivation of students to engage in physical education. When drawing up training programmes, teachers should pay attention to the reasons for the lack of enthusiasm for sports; elements that affect interest; passion for sports. In the future, the research will be aimed at developing the author's programme for designing a lesson based on the information received.

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Особливості внутрішньої мотивації сучасних студентів до занять фізичними вправами

Анотація. Сучасний спосіб життя сприяє зменшенню рухової активності та зниженню витрат м'язової енергії у поєднанні з нервово-психологічними перевантаженнями. Виходячи з цього, основна мета роботи полягає у виявленні особливостей внутрішньої мотивації сучасних студентів до занять фізичними вправами. Для досягнення поставленої мети були використані методи анкетування серед 75-ти студентів Технологічного інституту Яньчена, а також метод аналізу отриманої інформації. Унаслідок дослідження були встановлені причини відсутності зацікавленості до занять спортом з особистої ініціативи, серед яких можна виокремити відсутність наочного прикладу батьків, проблеми зі здоров'ям, програму навчального курсу тощо. Визначено, що половина опитаних студентів має пасивне ставлення до фізичних занять та спорту загалом, оскільки уроки фізичної культури відвідують час від часу. Також у роботі були виявлені показники мотивації (залежно від курсу навчання). Виявлено, що серед першого курсу найбільше значення має оточення (52 % респондентів), третього – здоровий спосіб життя (54 % опитуваних). За допомогою методу аналізу ієрархій було обрано сім найбільш значимих мотиваційних критеріїв, які дали змогу визначити, що комунікаційні мотиви є найважливішими. Це пов'язано з тим, що адаптація в колективі має першочергове значення для студентів молодших курсів. Отримані результати експерименту свідчать про наявність нерозривного зв'язку між внутрішніми та зовнішніми чинниками мотивації в занятті фізичними вправами. Лише комплексний підхід сприяє внутрішній зацікавленості молодого покоління. Результати статті мають першочергове значення для викладачів вищого навчального закладу під час складання навчальних програм, що посприяє зацікавленості студентів до уроку

Ключові слова: фізична активність, комунікація, метод аналізу ієрархій, анкетування, вид спорту, здоровий спосіб життя

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Emotional Resilience as a Major Factor in the Mental Health of Prospective University Students

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Abstract. This study investigates the issues of emotional stability as the main factor in the mental health of students of modern higher educational institutions. The relevance of the subject matter is conditioned by the high psychological and psycho-emotional stress that students of many specialties of modern higher educational institutions have to face during their studying, as well as the need for high psychological and emotional stability to handle such stress and successfully complete the training. The leading approach in this study is a combination of a system analysis of the influence of emotional overload on students of modern higher educational institutions during their training with the study of the features of increasing emotional stability in conditions of psychological overload during lectures at a university, which have a considerable impact on the psyche of a student and can cause numerous nervous breakdowns. The results of this study clearly emphasise the importance of the emotional stability of prospective university students as a factor that prevents the development of disorders of their mental health, and also necessitates the development of emotional stability in modern prospective university students to create a reliable, high-quality basis for strengthening mental health. The results and conclusions of this study are of substantial importance for students of modern higher educational institutions, university teachers, as well as for numerous researchers of the issues of improving emotional and psychological stability in conditions of high loads associated with intense mental activity inherent in both students and representatives of various spheres of mental labour

Keywords: mental health, higher education, psychological stress, psychological stability, educational activity

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INTRODUCTION

The problem of emotional resilience of modern students is acute due to the high academic loads, which modern students of higher education institutions have to face during their studies at the university. In this context, this refers to a considerable number of academic hours within educational and professional programmes, the volume of educational tasks, as well as the increasingly complex learning process in general, which is due to the high intensity of science and technology development in modern conditions [1]. In such conditions, the development of an appropriate level of psychological and emotional resilience among higher education students is a prerequisite for maintaining their psychological health and achieving success in high-quality mastery of their future profession [2].

Professional development of future specialists takes place even at the stage of their training in higher education institutions, which is extremely important in this context. Active, purposeful, and conscious self-affirmation of the individual in the future profession begins with listening to lectures, performing practical tasks aimed at obtaining initial skills within the chosen specialisation [3]. Proper organisation of group and independent work of student plays an important role from the point of view of the effectiveness of the entire educational process, contributes to the highest quality acquirement of educational material, as well as obtaining theoretical and practical skills necessary for the development of a higher education institution student in professional terms, as a competent specialist in chosen profession.

Both the emotional and psychological overload of a student during training can be a serious threat to his mental health, especially if he has a highly developed vulnerability and is prone to a painful response to numerous irritating factors of the educational process [4]. The development of emotional resilience is extremely important in this case, as it allows the student to remain calm even in the most difficult situations that arise in the learning process, and successfully and efficiently acquire the proposed educational material. Emotional resilience, as the main factor in maintaining a student's mental health, is also important from the point of view of ensuring an appropriate level of performance, developing the ability to perform more tasks within the training programme. In general, the student's emotional resilience is trained throughout his education [5; 6].

Emotionally stable students, in the context of global computerisation of higher education institutions and the external environment, are capable of processing considerable amounts of knowledge in a timely manner within the framework of the proposed training programme and adequately perceive the requirements for future specialists in modern conditions, which is a mandatory factor for achieving high results both in training and in further professional activities.

MATERIALS AND METHODS

The leading approach in this study is a combination of systematic analysis of the impact of emotional overload on students. A systematic analysis of the impact of emotional and psychological stress experienced by modern students during their studies, combined with an analytical study of the features of increasing their emotional resilience, ensures a clear picture of scientific research.

The theoretical basis of this research work is numerous studies of Ukrainian and, mainly, foreign scientists, devoted to the role of the emotional factor in students' training in modern conditions, from the point of view of preserving their mental health and the development of students' complete and integral set of competences necessary for high-quality acquirement of the programme of an education institution and the development of psychological qualities that predict success in terms of development as a future specialist in a given professional activity. In order to facilitate the perception of the information provided and create the most objective, high-quality picture of scientific research, all materials taken in the order of citation from national sources and given in this scientific study were translated into English.

This scientific study was conducted in three stages:

1. At the first stage of this scientific research, a theoretical analysis of available research in the field of assessing the category of students' emotional resilience as the main factor of their mental health was performed. This theoretical study was aimed at identifying the level of completeness of the current system of views in scientific circles on the issues included in the topic of this research work, as well as the main methodological approaches proposed for their practical solution.

2. At the second stage of this scientific study, a systematic

analysis of the impact of emotional overload on students during their studies was performed. In addition, at this stage of the scientific work, an analytical comparison of the results obtained in the course of the study was made with other researchers' results and conclusions of the problem stated in the framework of this paper.

3. At the final stage of this research work, the conclusions were formulated based on the results of the entire complex of scientific research within the framework of the set of issues stated in the research topic. In general, the results and conclusions of this scientific research are an objective and complete reflection of the entire complex of studies conducted in order to form an objective picture of emotional resilience as the main factor of mental health of prospective university students.

RESULTS AND DISCUSSION

Emotional resilience is one of the most important qualities of a graduate of any high education institution, which determines his ability to adapt within the chosen profession and prospects for further growth. At the same time, a high level of emotional resilience, both for students and young specialists, contributes to the preservation of mental health and prevents the development of professional burnout and personal deformity, in relation to all areas of activity without exception [7]. Notably that in the student environment, the problem of forming emotional and psychological resilience is extremely acute. It is the age of students that is considered to be the most favourable in terms of the prospects for studying, obtaining higher education, and further professional adaptation. At this time the prospective student of a university receives a full set of skills, theoretical and practical abilities, and professional competences that in the future will contribute to the development of his personality within the chosen profession. This means that the age from 17 to 23-25 years should be considered the most favourable from the point of view of the prospects for forming the proper level of emotional and psychological resilience of the individual.

The educational process within the higher education institution includes the following main components: organisational components (lectures, practical classes, seminars); academic research work, which provides for students' independent activity when studying certain disciplines of the educational and professional programme; productive practice, which includes performing purely practical operations that are as close as possible to the realities of further activities within the chosen profession. The development of psychological and emotional resilience of higher education students occurs gradually, as they master the programme of the education institution. Numerous researchers have noticed that in most cases, high indicators of emotional resilience are achieved by students before the third or fourth year of study, and only in some cases this happens earlier. At the same time, the acquisition of the necessary life experience for professional and personal development occurs only through the assimilation of new knowledge, both theoretical and practical. Only practical classes with the application of the obtained theoretical knowledge in

the real field contribute both to the qualitative development of competences necessary for conducting professional activities in the future, as well as to strengthening the emotional resilience of higher education students at all stages of their study.

The diagram below demonstrates the main components

of the student's emotional resilience, which are formed in the process of mastering the educational and professional programme (Fig. 1). It should be noted that the presented data are of generalised character and may change depending on the target orientation of training in a particular education institution.

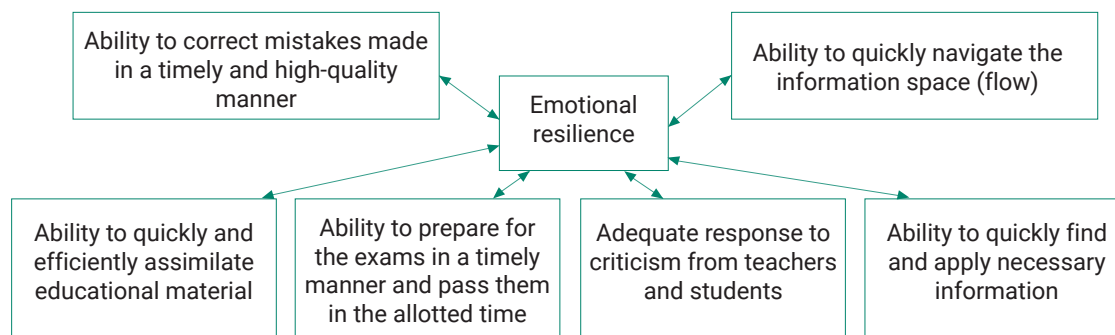


Figure 1. The main components of the student's emotional resilience that are formed in the educational process

As follows from the information provided in Figure 1, an ability to adequately perceive criticism from teachers and other students is a mandatory component of the proper level of modern student's emotional resilience. In addition, one of the important factors in this context is the ability to quickly find the necessary information and apply it in practice in order to obtain high-quality results in a particular field of knowledge. As practice shows, not all students and even graduates of higher education institutions have such competences, which subsequently has a very negative impact on their professional activities.

The most important component of a well-formed psychological resilience of a modern student is the ability to correct mistakes made in a timely and high-quality manner, as well as their adequate perception. A student with a high level of emotional resilience is able to calmly respond to the fact of making any mistakes, regardless of who points them out to him, as well as correct them in a timely and high-quality manner, trying to prevent them in the future.

The above ability to quickly search for the necessary information implies the ability to quickly navigate the information field, which is important in the conditions of modern comprehensive entry of the Internet into everyday life and the educational process. This competence involves achieving a certain level of literacy in a particular type of information, which allows quickly finding the necessary elements in the information space and successfully apply them to solve certain tasks. This is associated with the ability to quickly and efficiently process educational material, as well as the ability to properly build one's own preparation for passing control modules and exams at a specially designated calendar time and without accumulating debts.

From the point of view of the role of emotional resilience in preserving the mental health of modern students, it is of great importance to form their ability to adequately respond to possible failures in the learning process associated with difficulties in mastering individual blocks of the curriculum or its disciplines as a whole. Various situations that arise at the stages of educational activity can have a destructive effect on the psyche, especially if they arise due to

the deterioration of the student's relationship with others, whether with teachers or students [8]. High-quality interaction between the student and the teacher plays a huge role, both in achieving the final success of the educational process, and in terms of creating a microclimate that contributes to achieving high learning results. The proficiency in student's communication skills largely determines the level of his knowledge and the speed of development of professional competences necessary for further activities.

Not less important is the student's ability to find and maintain motivation to attend lectures and practical classes in a timely manner, as well as to develop their own motivational and sense bearing sphere, focus on success and self-development, and achieve high academic results. Various motivating situations in the learning process, such as the opportunity to get an increased scholarship with better academic performance, go on vacation earlier when passing exams earlier than the set calendar time, etc., should serve as a factor that stimulates the student's personal and professional development, which is directly related to achieving a high level of emotional resilience [9]. This determines the function of emotional resilience as the main factor in achieving a high level of mental health of a higher education student since only a person with high emotional and psychological resilience will be able to process large amounts of information in modern conditions in the process of studying in the higher education institution in a timely and high-quality manner, without significant harm to mental health.

Taking into account the high rate of modernisation of the current higher education system, the competency-based approach to training a student should be focused on ensuring the success of a graduate of the higher education institution in the modern labour market, with its changing priorities. In modern conditions, a graduate of a higher education institution should have the skills to analyse their own professional activities and the ability to monitor their psychological state when performing narrow professional tasks directly related to their work [10]. The emotional resilience of a young specialist plays a crucial role in this

context. Training in higher education institutions is usually considered the most important stage of professional development, in other words, active, conscious affirmation of the individual in a professional position based on the assimilation of the established system of knowledge, norms, values, and mastering professional skills. Notably, students have different attitudes to learning, but at the same time, a higher education student who strives to achieve success in the chosen profession is characterised by activity, the ability to independently organise his own activities within the framework of acquiring certain competences. It is characterised by a specific orientation of cognitive and communicative activity to solving particular professionally-oriented tasks. The correct organisation of the student's activity system should be considered one of the main factors of emotional resilience of his personality, and its absence can be a serious obstacle to this [11].

In the conditions of modern society, the development of each individual person's potential is of great importance, and the higher education system plays a very important role in this context. Achieving success in the future professional activity by a modern student is impossible without a clearly built relationship between the emotional, personal, and motivational spheres, the quality of modern students' life in the information space of a higher education institution [12]. This determines the need for a deep study of the emotional component of modern students' life and the importance of conducting research in this area. A separate role in the development of modern students' emotional resilience is played by interpersonal relationships that arise between students in the learning process. The development of the ability to effectively build relationships with both teachers and other students is one of the characteristic components of a sufficient level of student's emotional resilience, his sociability, and the ability to find himself in society. It is also important to be able to listen to and hear others, calmly accept criticism, and be able to negotiate even in the most difficult life situations.

Emotional resilience is one of the least developed and formed qualities of a modern personality, regardless of its type of activity and age. As one of the forms of adaptive abilities of a person, emotional resilience implies the ability to track any emotional experiences, control over them, and the ability not to give in to emotions in any, even the most difficult situations. Emotional resilience should be considered an integral property of the mental organisation of the individual, which is manifested in the ability to overcome states of excessive emotional excitation characteristic of performing complex activities [13]. This category can be defined as a stable susceptibility of the individual to destructive emotional states and influences of various conditions, both external and internal. Due to high emotional resilience, the negative effects of strong emotional experiences are maximally reduced for a particular person, the destructive impact of stressful factors on the body weakens, and readiness for action in the most difficult and problematic situations increases. Emotional resilience can be considered as a result of functioning of an integral system of emotional self-regulation of human body, which

integrally characterises its abilities for any kind of activity.

Modern students who are getting higher education in the era of high information technologies and Internet entry in almost all spheres of life can rightfully be classified as a group with a high risk of developing diseases of the nervous system in general and mental disorders in particular. This is due to the increasing mental, cognitive, and emotional stress, the need to adapt to new learning conditions, as well as to form new, professionally determined interpersonal relationships. The motivation for obtaining higher education in modern conditions is determined not only by the need for professional orientation, but also by the needs for obtaining high-quality knowledge, which form the personality structure of the future specialist [14]. The emotional status of a modern higher education student determines the further area of his activities both when studying at a higher education institution and in the future, when performing his professional duties. The high level of mental self-organisation of a higher education student is crucial from the point of view of his ability to adapt in a timely manner to the realities of the educational environment and adequately perceive the main contradiction of the modern higher education system, which is expressed in the discrepancy between the rapid rate of complication of information entering the modern educational field and the possibilities of its assimilation by modern students, whose capabilities are a priori limited [15].

In this context, of particular importance is the ability of modern students to resist emotional burnout, which manifests itself in the psychological coping mechanism, characterised by partial or complete disconnection of emotions as a response to psychological impact that can traumatise. Emotional burnout most often occurs at a young age, in conditions of lack of life and practical experience in specific areas. The psychological researches conducted in recent years allows defining emotional burnout as an acquired stereotype of emotional behaviour, during which there is a gradual loss of physical, cognitive, and emotional energy by an individual, which manifests itself in the occurrence of characteristic symptoms of mental and emotional exhaustion, physical fatigue, and indifference to the results achieved [16]. In the conditions of the modern higher education system, it is essential to pursue the concept of humane attitude towards students, which is manifested in the recognition of their self-worth, respect for the needs of personality-oriented learning, which is based the student's personality, and the main task is the development of this personality. The selection of a complex of individual educational influences determines the qualitative differentiation of the entire learning process, taking into account the subjective experience of each higher education student separately.

In some cases, the development of a high level of emotional resilience of modern higher education students implies the need to conduct individual classes within the framework of training in higher education institutions, which involve placing emphasis on personal experience, which will need to be developed and multiplied in the future. In such situations, students are required to have a high level of self-control, self-organisation, the ability to

adequately assess their actions, and the ability to work on mistakes in order to prevent their repetition in the future. All these factors will contribute to the emergence of new emotions that encourage students to take action and motivate to achieve high academic results, which is one of the important manifestations of their emotional resilience [18].

The socio-psychological sphere of a modern student's personality is subject to constant structural changes, which can both positively influence his professional and social development, and significantly complicate his further self-realisation in society. It is the issue of emotional resilience of a higher education student that plays a primary role in this context. Students with a high level of emotional resilience perceive life and educational difficulties more easily, are less susceptible to depression and sudden mood swings, which generally has a positive effect on their ability to withstand the difficulties that inevitably arise in the development of various professional and personal competences. At the same time, people with a low level of self-esteem and emotional resilience are less capable of introspection, search, and recognition of strengths and weaknesses of their personality, which in a complex negatively affects the prospects for their personal development and self-realisation [19].

In the context of mastering an educational and professional programme for the development of a student's emotional resilience as a factor that significantly affects the overall level of his further mental health, it is extremely important to conduct timely psychological correction of certain aspects of behaviour on the part of an experienced teacher. Unfortunately, nowadays, the service for providing psychological assistance to students of higher education institutions has not yet received proper development and promotion, so that it is possible to discuss the qualitative introduction of the principles of psychological control of the students' state in the learning process [20]. However, the first steps in this direction have already been taken, and a number of modern humanitarian universities have already developed and implemented technologies for providing psychological assistance to students in crisis life situations. Such measures in prospect can significantly affect the entire higher education system, contributing to the qualitative development of a high level of emotional resilience among modern students, which will contribute to the preservation of their mental health in general.

A modern successful person who is characterised by a high level of adaptation, both to social conditions and to the realities of student and professional life, has the ability to conduct introspection, if necessary, with the identification of the main factors that both determine his success in society and professional environment, and prevent the achievement of high results in a particular type of activity. In this aspect, the factor of the presence or absence of communicative experience is of great importance, which contributes, in conditions of a high level of individual's emotional resilience, to adequately assess the judgments of others about themselves, without running into extremes and depressive states in cases where the opinion of others is not quite as expected. In such situations, the ability to defend one's own point of view on the surrounding events and phenomena is of great importance, as well as to accept

objective criticism, if such criticism contributes to the improvement of the individual as a whole [21]. In this case, it will be possible to mention mental adequacy of the individual, his tendency to introspection and the ability to draw correct conclusions from situations, which generally allows discussing the presence of a high level of development of emotional and psychological resilience.

Modern students develop simultaneously in various fields directly or indirectly related to their main task, which is to get higher education and master their chosen profession. The emotional sphere of their development is extremely important both from the point of view of further professional growth, and from the point of view of assessing the prospects for personal growth. The development of psychological and emotional resilience of modern higher education students should not be neglected since in the future this may turn into significant problems, both psychological and professional.

CONCLUSIONS

A scientific study of various aspects of assessing emotional resilience as the main factor in the mental health of higher education students has led to the following conclusions. The development of emotional resilience of modern students of higher education institutions is a very important factor in terms of forming their ability to learn, to fully assimilate the material of the curriculum, and form the competencies necessary for the successful implementation of further professional activities. Emotional resilience is formed in students gradually, throughout the entire period of mastering the university programme, and is one of the essential factors of the integrity of their mental health and the quality of professional training. Only an emotionally stable person who endures the stresses and experiences associated with various unfavourable aspects of his professional activity can be considered a high-class specialist who can efficiently solve any professional tasks. In this context, the need to develop emotional resilience among higher education students during the entire period of study of their chosen specialisation in the system of modern higher education is explained.

Taking into account the importance of all these circumstances from the point of view of the influence of emotional resilience on the further professional activity of modern higher education institution graduates, it can be concluded that it is necessary to gradually develop this competence in a purely practical way. The emotional resilience can be developed only in direct contact with factors that are crucial in terms of training in the higher education institution, such as lectures and seminars, self-training in free time, passing exams, as well as practical classes aimed directly at mastering skills that are important for future professional activity. At this stage, the student is responsible for the high-quality assimilation of educational material, which is confirmed by the results obtained in intermediate assessments, as well as the development of practical experience when performing tasks that are close to the conditions of professional activity. All this together forms a high level of emotional resilience of the future specialist, which in future will serve as a reliable basis for his mental health and high-quality performance of his professional duties.

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Емоційна стійкість як основний фактор психічного здоров'я здобувачів вищої освіти

Анотація. У даній науково-дослідній роботі розглядаються питання емоційної стійкості як основного фактору психічного здоров'я студентів сучасних закладів вищої освіти. Актуальність заявленої тематики наукового дослідження обумовлюється високими обсягами психологічних і психоемоційних навантажень, з якими змушені стикатися студенти багатьох спеціальностей сучасних ЗВО в період здобуття вищої освіти і необхідністю наявності у них високого рівня психологічної і емоційної стійкості для того, щоб мати можливість впоратися з такими навантаженнями і успішно закінчити навчання. Провідним підходом в даній науково-дослідній роботі вибрано поєднання системного аналізу впливу емоційних перевантажень на студентів сучасних вищих навчальних закладів в період їхнього навчання з дослідженням особливостей підвищення емоційної стійкості в умовах психологічних перевантажень при заняттях у ЗВО, що істотно впливають на психіку учня і здатні стати причиною численних нервових зривів. Результати даної науково-дослідної роботи наочно підкреслюють важливість емоційної стійкості здобувачів вищої освіти як фактору, що перешкоджає розвитку порушень їхнього психічного здоров'я, а також свідчать про необхідність розвитку емоційної стійкості сучасних здобувачів вищої освіти, з метою створення надійної, якісної основи для зміцнення емоційної стійкості. Результати та висновки даної науково-дослідної роботи мають істотне значення для студентів сучасних ЗВО, викладачів, а також для численних дослідників питань підвищення рівня емоційної та психологічної стійкості в умовах значних навантажень, пов'язаних з процесами інтенсивної розумової діяльності, властивої як студентам, так і представникам різних сфер розумової праці

Ключові слова: психічне здоров'я, вища освіта, психологічні навантаження, емоційна стійкість, навчальна діяльність

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Psychological and Pedagogical Features of Training Future Teachers (Primary School)

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Abstract. The relevance of the study is conditioned by the increasing requirements for the quality of psychological and specialised training of modern primary school teachers, as well as the need to increase the level of their professional competences in the context of current changes in secondary education. The main purpose of this study is an objective analysis of the features of psychological and pedagogical training of future primary school teachers, carried out to determine the most effective and currently available methods of professional training of future teachers in higher educational institutions. The leading approach in this study was a combination of methods of system analysis of the training of future primary school teachers in the system of higher education and analytical research of modern methods of improving the psychological stability of future teachers and the development of their professional competences. The results of this study indicate the importance of the subject matter, the need to find new opportunities for pedagogical skills and psychological stability of future primary school teachers in the context of trends in the modern education system and in terms of prospects for its further effective development. The results and conclusions of this study are of great practical importance both for the compilers of curricula responsible for the final quality of professional training of future primary school teachers, and for teachers of higher education institutions who conduct classes on pedagogical and psychological training of these professionals and pedagogical university students that have chosen a specialty related to teaching in primary school

Keywords: education system, primary school, psychological training of future teachers, education psychology

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INTRODUCTION

Recently, the problem of high-quality training of primary school teachers has become acute in the modern system of higher pedagogical education. Primary school teachers have a great responsibility for the quality of teaching material to students, checking the level of assimilation of the school curriculum, as well as for effectively finding an approach to students, which is directly related to the level of psychological and pedagogical training of the teacher himself. Pedagogical science is constantly developing, putting forward new requirements for the training of future teachers. In the current situation, the study of the features of psychological and pedagogical training of future primary school teachers becomes of particular importance in the context of the urgent need to form a model of relations between teachers and students, taking into account the advanced trends in the development of the modern school system [1].

Modernisation of the existing school system with

the introduction of the latest teaching methods that affect primary education implies the need for a gradual transition to a competency-based model of education, in which the teacher's personality is assigned the main role. The state education programme sets it the task of developing the ability to quickly prepare students for successful functioning in a changing world, in which there is a rapid flow of information exchange processes and new methods of obtaining and practical assimilation of various skills and knowledge are constantly emerging [2]. The changing need for new professions also imposes additional requirements on the personality of a modern teacher, in particular, on his ability to identify the student's inclinations to a particular type of activity and promote the right choice.

Primary school teachers are given additional responsibility for the ability to correctly build the learning process of younger students in order to maximise the development

of their ability to learn, acquire new knowledge and skills necessary in later life, and effectively use them in the practical sphere. The level of his pedagogical competence and psychological training depends on the level of students' development of the primary school education programme and their ability to study in high school and, possibly, continue their studies at the level of the university programme in the future [3]. All this explains the level of problematics of the tasks facing the system of training future primary school teachers today, namely, to educate teachers who are able to quickly navigate the changing requirements of the modern information society, which is characterised by a high degree of intellectual flexibility and a tendency to rapid transformations. The modern system of higher pedagogical education among its main tasks has the problem of training highly competent teachers, who are able to effectively apply the knowledge gained for studying at the university in the process of their own pedagogical activities to form the proper level of competences among their students. Indeed, university education should contribute to the education of a high level of psychological stability of future teachers, since their professional responsibilities will include not only teaching subjects of the primary school programme, but also building high-quality, cultural and artistic relationships with children and their parents, which in combination should contribute to the education of students and their educational process and development [4].

A modern primary school teacher should teach a child to set tasks for himself and be able to solve them effectively, since such skills will be useful in all areas of his future life. Such a rather difficult task implies the presence of special competences and a high level of both direct professional, pedagogical, and psychological training. In this context, when drawing up a university training programme for future primary school teachers, all such factors should be considered to create all the necessary prerequisites for the development of professional competences necessary for a primary school teacher for his future professional activity.

The purpose of this study was to analyse effective methods of psychological and pedagogical training of future primary school teachers.

MATERIALS AND METHODS

This scientific research used a combination of methods of systematic analysis of the training features of future primary school teachers in the university education system, with an analytical study of modern methods for improving the psychological stability of future teachers and developing their professional competences. It was planned to conduct a systematic study of the features of pedagogical and psychological training of future primary school teachers, taking into account the existing theoretical and practical developments of other researchers, submitted for consideration of issues, in combination with a detailed practical study of the effectiveness; the application of methods for preparing future school teachers to work in a modern secondary school, from the point of view of educating them with the necessary professional and personal competences for this type of activity.

The basis of this scientific research was numerous theoretical and practical developments of Ukrainian and foreign authors devoted to the study of training future primary school teachers to conduct professional activities in secondary schools, taking into account their personal psychological characteristics and the need to form pedagogical competences, sufficient to build high-quality teaching communication with students and their parents. In order to create the highest quality and objective picture of scientific research, as well as facilitate the perception of the information provided, all materials taken in the order of citation from Ukrainian sources and given in this scientific study were translated into English. Thus, the methodological base of this research work was selected in strict accordance with the stated topic of the scientific work and contributes to its highest quality and comprehensive coverage.

The scientific research was conducted in three stages: at the first stage of this research work, a systematic theoretical study of the publications available within the declared topic was conducted, in order to form an assessment of the situation regarding the system of views on the features of training primary school teachers in the context of developing the necessary pedagogical and psychological competences that can ensure high-quality pursuit of their professional activities. At the second stage of this research work, an analytical study of current methods for improving the psychological stability of future teachers and developing their professional competences was conducted. At the same time, an extensive comparative analysis of the main results obtained in the course of research work was carried out, with the results and conclusions of other researchers on this topic. At the final stage of the scientific research, the main practical conclusions were obtained and disclosed, which were consistently derived from the results obtained during this scientific research and are their final reflection. In general, the conclusions obtained from the results of this research work sum up the results of the entire complex of research works and objectively reflect the main identified psychological and pedagogical features of training future primary school teachers at the stage of their training in a pedagogical university.

RESULTS AND DISCUSSION

Primary schools are assigned the most important role in the system of general education schools in the context of educating the younger generation and promoting the development of their competences necessary and sufficient for further development in the system of modern education. This explains the importance of psychological and pedagogical training of future primary school teachers to conduct their professional activities in the future. A modern literate and competent professional in the field of primary education of schoolchildren must both have a deep professional interest in their activities and steadily strive to acquire new knowledge and skills in the chosen profession. The questions of his psychological stability, at the same time, are also essential since it is required to work in a modern secondary school, with all its problems and difficulties. High results in the professional activity of a primary school teacher can be

achieved only if he has the appropriate motivation and genuine interest in receiving a high-quality education by his students, fully assimilating the curriculum and developing appropriate skills in mastering new knowledge.

In the conditions of the modern system of higher pedagogical education, the development of a high-level pedagogical competence of future primary school teachers should take place in accordance with the principles of updating the needs of professional and personal cognition, the ratio of personal psychological properties with the requirements put forward by the realities of the chosen profession, the consistent construction of a priority value system in relation to it. The features of the development of future primary school teacher's pedagogical competence in the system of modern university education should be divided according to the main criteria associated with the stages of entering the chosen profession:

- familiarisation with the specifics of the profession;
- mastering basic professional principles and competences;
- direct entry into the system of professional activity.

According to the established specialists of the modern education system, at the first introductory stage, there is a primary development of students' pedagogical competences, through the influence of a complex of specially developed educational situations that can affect the professional orientation of the future teacher. From the point of view of developing the professional competences necessary for a future primary school teacher in his future activities, of particular importance is the first year of his studies at a pedagogical university.

An assimilation of basic professional principles and competences takes place in the process of further study at the university, with practical training directly in the real conditions of secondary school. Practical development of primary professional competences contributes to the young teacher's adoption of a final decision on their future in the chosen profession. Direct entry into the system of professional activity involves giving a young teacher a responsibility of becoming a head teacher in a secondary school and performing his main professional duties. At this stage, the final development of pedagogical competence occurs, personal and communication skills, professional skills of presenting educational material and forming children's interest in mastering it are developed to the required degree.

The features of psychological training of future primary school teachers at the stage of studying at the university and in the process of direct performance of their work duties when entering the profession consist in the accuracy of the choice of methods of psychological influence intended for the qualitative development of pedagogical university students' psychological stability necessary for them to work in primary school in the future. Today, regarding the system of modern higher pedagogical education, it is worth highlighting the main practical lines for the development of psychological training of future teachers:

- the use of game role models for the development of psychological competence;
- a practical study of theoretical methods for overcoming stressful situations directly related to professional activity;

– training sessions on the development of psychological stability of the future teacher.

In the process of studying at a pedagogical university, the future teacher studies the disciplines within the framework of the proposed training programme "Technologies of the modern education system in primary schools", "Theoretical foundations of special psychology and pedagogy", "Theoretical foundations of education", "Social pedagogy", "Pedagogical diagnostics", etc. With the help of consistent assimilation of the training programme for the future teacher, the specifics of teaching in primary school are identified, his self-awareness as a future pedagogue and teacher is formed, skills of working with children and consistently presenting programme material to them are engrained. During the classes at a pedagogical university, controversial issues of the modern system of higher pedagogical education are considered, answers are searched and found that form the future teacher's system of views on the problems of modern system of pedagogical education. The development of pedagogical and psychological competence of the future primary school teacher occurs both with the use of theoretical material and with its practical development, in which the conduct of real lessons in the process of practical training in primary school is essential.

The psychological training of future primary school teachers should be aimed at developing their ability not to react to manifestations of aggression towards them, both on the part of students and their parents. For this purpose, it is recommended to conduct special training sessions aimed at developing stress tolerance, which can be performed both in the form of team tasks and in the form of an individual approach, taking into account the personal qualities of the student. At the same time, it is mandatory to use special exercises that involve modelling problem situations that may arise in the course of professional activity, with their subsequent effective solution. The practical work in primary schools will be of particular fundamental importance in this context.

Pedagogical and psychological training of future primary school teachers should include the study of child psychology, both in terms of developing a theoretical base and in practical ways, which should also be actively promoted by practical work in primary school classes. Laying a high-quality foundation, both pedagogical and psychological, will contribute to the consistent development of professional competences of the future primary school teacher, which in the future will play a crucial role at the beginning of independent teaching activities in primary school [5]. The knowledge and skills acquired by a student at the stage of studying at a pedagogical university will subsequently be sharpened in the process of daily communication with children of primary school age, during parent meetings and during extracurricular work, however, without a qualitative basis obtained during training at a higher pedagogical educational institution, there can be no expectation on achieving a qualitative level in pedagogy, understanding child psychology, and acquiring a teacher's skill in general.

A modern primary school teacher is a full member of the educational process, in which he is assigned a largely

decisive role. His ability to present material, establish contact with children and their parents, engrain the desire to learn and master new skills to students depends on how they will continue to assimilate the high school programme and continue their studies in the system of higher education institutions [6]. In addition, the primary school teacher can and should contribute in every possible way to the development of children's skills in applying the acquired knowledge in practice, in everyday situations, to develop their friendliness and sense of collectivity, responsibility for their behaviour and actions. All the skills necessary for a future primary school teacher in his daily professional activity are laid down at the stage of his studies at the university and how well they will be mastered and developed largely depends on his further professional activity and the quality of knowledge and skills that he will pass on to his students later.

Primary school today is at the center of pedagogical and scientific thought, its problems, difficulties, novelty of tasks set by the modern education system affects almost all segments of the population. The introduction of new teaching methods in primary schools has added an important task to the number of pedagogical tasks – early identification and support of children's talents at the initial stage of training, the development of special pedagogical conditions and trajectories for such students that allow them to fully realise their creative potential. A modern primary school teacher should teach a child to independently set significant tasks for him, to elementary formulate significant problems at his own level, to learn to distinguish between what is necessary and significant in the future, independently organise his activities and find an approach to the thoughts and feelings of others. In other words, the primary school teacher should not just broadcast, “transmit” knowledge to children, but teach them to independently search for new knowledge and effectively apply it in practice.

A primary school teacher who implements the main educational programme of primary general education in practice, within the framework of general education training, must master the basics of modern concepts of nature, society, and the technical environment; have the skills of an advanced user of information and communication technologies; in professional training: to have key professional competences, such as professional communication, the ability to solve professional problems, information competence. The future primary school teacher must clearly understand the tasks of educational philosophy, philosophical and cultural concepts, age and pedagogical psychology, the basics of psychology of deviant behaviour, differences in the assessment of intellectual, moral, and volitional development parameters of the child; the principles of organising the educational environment, the essence of current at this point of time pedagogical technologies and methods, such as developing, problem-based, differentiated learning, project method, modular pedagogical technology, technologies that allow maintaining health and performance for a long period of time, technology of creating a portfolio.

Today, the system of higher pedagogical education is not always able to ensure the qualitative development of future primary school teachers of the necessary competences,

which will further affect the quality of teaching activities in the conditions of a modern school [7]. The development of psychological stability and pedagogical skills of future primary school teachers very often occurs spontaneously, already in the conditions of independent professional practice, so to speak, on inspiration, without purposefully laying down these principles in the conditions of studying at a pedagogical university. The more important is the development and consistent implementation of special programmes for the development of psychological stability and pedagogical skills in the existing system of university training of future teachers, which would become a reliable basis for all further professional activities of the teacher [8].

At the stage of training future teachers in the framework of the university programme, it is necessary to actively involve them in activities close to professional, which will contribute to obtaining objective ideas about the realities of modern school, the features of communication with children in the classroom and extracurricular life, which in general will contribute to the development of the future teacher's positive attitude to his profession and his direct duties [9]. Without this, it is actually impossible to get a correct idea of the features of one's future profession and it is impossible to imagine the difficulties that one will have to face at different stages of teaching.

Love for children is called the main, characteristic, and obligatory feature of primary school teachers, without which it is impossible to talk about the possibility of achieving mastery in the profession and developing high professional skills and competences [10]. The level of psychological stability of a future teacher is largely determined by his ability to feel attachment to his students, treat children's manifestations with understanding, develop patience as one of the most important pedagogical competences. The teacher must see a unique personality in each child, with special features inherent only to him, and be able to take them into account in the learning process, during personal communication with children, during the lesson, when checking tasks, and so on. The ultimate task of every primary school teacher is to develop the ability to teach the student to learn, to interest him, to notice the hidden creative potential in the child in order to contribute to its implementation later [11]. In pedagogical practice, there are many cases when competent, experienced, and responsive primary school teachers noticed outstanding hidden creative opportunities in children; teachers contributed to their development, and as a result of which, after a significant amount of time, the world got new, outstanding scientists, writers, actors, athletes. Many of them later acknowledged that their achievements were due to their first teachers, who were able to see their hidden abilities and push them to develop. The developed pedagogical skills of the teacher in combination with his psychological flair were exactly the core basis that eventually allowed the teacher to brilliantly cope with the tasks assigned to him [12].

For a modern primary school teacher, a very important aspect is the availability of a high level of educational and methodological support, which is necessary both for conducting lessons within the framework of the

mandatory school curriculum of primary education, and the development of pedagogical skills of the teacher, the development of his psychological stability. The development of the ability to work with methodological material should be formed at the stage of training in a pedagogical university, as an integral element of the professional competence of the future teacher [13]. Over time, this will contribute to the development of the ability to correctly plan the educational process and extracurricular work, clearly set tasks in the learning process, and effectively build communication with students and their parents. In order for all such tasks to be effectively implemented by the primary school teacher in the future, even at the stage of his university training, it is necessary to create all the conditions on the part of the educational institution. In addition, students should be constantly working to be prepared to work with children – workshops, round tables, conferences, etc.

The realities of the modern education system impose requirements for the personal and professional qualities of a future primary school teacher of high benevolence, for children in particular, attention to their urgent needs and problems, the ability to delve into these problems and find answers to questions of interest to the child. At the same time, the level of pedagogical skill of the teacher should be such that he can hold the attention of the entire class for the necessary time, at the same time competently teaching educational material with all the necessary accents [14]. A modern teacher should have a literate speech and constantly work to improve its level, so that it is always clearly delivered and understood by all students without exception. The ability to control the attention of the entire class as a whole and each student individually is a mandatory competence of a modern primary school teacher. A high level of psychological stability of the teacher should provide him with the ability to maintain composure in any, even the most difficult situations related to the behaviour of children during the lesson, allow him not to react to the whims of children and always complete the curriculum, being able, at the same time, to find a common language with everyone without exception, even with the most difficult children. The authority of the teacher in the eyes of children should always be kept at the highest level, otherwise students simply will not perceive the teacher and he will not be able to teach them anything.

The development of psychological qualities of a teacher is of paramount importance from the point of view of the ability to work with all parents without exception. The teacher should be able to apply an individual, personal approach in such situations, taking into account the individual characteristics of parents and their children. Only in this case can various situations in the life of the class be successfully resolved, which are both educational in nature and related to the behaviour of children during lessons and school breaks, as well as among themselves outside of school. At the stage of studying at a university, a student-centered approach to the development of pedagogical competence of future teachers, as well as their psychological qualities, is of great importance. The individual characteristics of each teacher contributes to the choice of

the most effective exercises and methods of his training, which can have the most qualitative impact at the stage of development in the future primary school teacher of the necessary skills and developments, both psychological and those that are directly related to his pedagogical skills [15].

There are different opinions about the conditions for the development of pedagogical orientation during the training of future primary school teachers at the stage of university training. A number of researchers believe that special teaching methods should be used to strengthen the psychological stability of future teachers and create competences sufficient for effective teaching. At the same time, according to other researchers' opinion [16] on the features of psychological and pedagogical training of future primary school teachers, the problem of their high-quality training, taking into account the realities of the modern education system, can be effectively solved only with the development and implementation of an integral system, both in education and training of the future teacher, which involves the use of interactive models of education. In other words, for the full development of psychological and pedagogical competences necessary in educational activities, a future primary school teacher is required to actively participate in the learning process, with independent setting of educational priorities and searching for opportunities for their qualitative implementation [17].

Recently, in the modern system of university training of future primary school teachers, the opinion prevails about the need to organise external influence on the educational process, in order to achieve awareness by future teachers of the tasks assigned to them, the prestige of the chosen profession, and its significance from the point of view of forming children's desire to master new knowledge and the ability to learn in general [18]. Also, in the system of university training of primary school teachers, there is an opinion about the need for mandatory high-quality organisation of the learning process, taking into account the building of a clear relationship between students' educational activities and practical orientation, which provides for taking into account all the main features of the chosen profession. The pedagogical orientation of the future primary school teacher's personality should serve as a clear guide to the entire training process and its development is the main criterion for the success of the entire training as a whole. The pedagogical orientation of the future primary school teacher's personality is determined by understanding the actual difference between the planned framework of the school curriculum, the level of students' knowledge with actually achieved indicators, as well as the desire to steadily improve the level of students' knowledge with the help of correctly and competently built training sessions conducted in strict accordance with programme methods and taking into account the application of purely personal practical developments, which are a systematisation of the teacher's personal experience [19]. The foundation of significant pedagogical and psychological competences of the future primary school teacher is laid directly at the stage of learning in a higher pedagogical education institution and the quality of teachers' work with future teachers largely

depends on the development of their further professional activity, the level of pedagogical skill, psychological stability, and the overall quality of teaching in primary school [20].

CONCLUSIONS

The study of the main features of a pedagogical and psychological nature related to the training of future primary school teachers led to the following conclusions:

1. Psychological and pedagogical features of training future primary school teachers provide for the introduction of a comprehensive training system at the stage of pedagogical university education using modern development models of both pedagogical and psychological competence. This becomes possible only if special conditions are created in the training system, both pedagogical and psychological, which provide for the practical use of modern teaching methods. The principles of their development can and should be used in planning of special university training programmes in the process of training future primary school teachers.

2. All curricula aimed at developing future primary school teachers' mandatory psychological and pedagogical competences in the future should be systematised and typified according to the main defining features. The qualitative skill development of a future primary school teacher is facilitated by the direct development of basic psychological

communication techniques with students in the classroom. This requires a consistent expansion of practice in secondary schools, which should take place both within the framework of studying the university programme, and within the framework of productive or undergraduate practice. This practice perfectly contributes to the development of the main pedagogical orientation of future primary school teachers.

3. From the point of view of psychological and pedagogical training of future primary school teachers, of particular importance is the development of an appropriate level of motivation to improve their own professional skills, the development of high communication skills necessary both during direct communication with children within the school curriculum, and with their parents at parent meetings and within the framework of extracurricular work. Psychological competence of future teachers is directly related to the level of their motivation since it is impossible to develop in pedagogy and increase teaching skills without it. Properly built at the stage of training in a pedagogical university, the motivational scheme is designed to promote the desire of future teachers for self-improvement and consistent improvement of both pedagogical skills and psychological stability in the face of possible changes in the modern system of primary and secondary school education.

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Психолого-педагогічні особливості підготовки майбутніх вчителів (початкової школи)

Анотація. Актуальність заявленої тематики цього наукового дослідження обумовлюється підвищенням вимог до якості підготовки сучасних вчителів початкової школи, як психологічної, так і вузькоспеціальної, а також необхідністю підвищення рівня їхніх професійних компетенцій у контексті поточних змін у системі загальношкільного освіти. Основною метою цієї науково-дослідної роботи виступає об'єктивний аналіз особливостей психологічної та педагогічної підготовки майбутніх учителів початкової школи, з метою визначення найбільш ефективних у цей момент часу методик професійної підготовки майбутніх учителів у вищих навчальних педагогічних закладах. Провідним підходом у цій науково-дослідній роботі було поєднання методів системного аналізу особливостей підготовки майбутніх викладачів початкової школи в системі вузівського навчання, з аналітичним дослідженням сучасних методик удосконалення психологічної стійкості майбутніх педагогів і розвитку їхніх професійних компетенцій. Результати, отримані під час науково-дослідної роботи свідчать про значимість заявленої проблематики, необхідність пошуку нових можливостей становлення педагогічної майстерності та психологічної стійкості майбутніх вчителів початкової школи, в контексті тенденцій сучасної системи освіти і з точки зору перспектив її подальшого, ефективного розвитку. Результати та висновки цього наукового дослідження мають істотне практичне значення як для укладачів програм навчання, що відповідають за підсумкову якість професійної підготовки майбутніх учителів початкової школи, так і для викладачів вищих навчальних закладів, які проводять заняття з педагогічної та психологічної підготовки зазначених фахівців, а також студентів педагогічних вузів, які обрали спеціальність, пов'язану з викладанням у початковій школі

Ключові слова: система освіти, початкова школа, психологічна підготовка майбутніх вчителів, психологія освіти

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