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Oksana Danysko[1]

Oksana Kornosenko[2]

Iryna Taranenko[3]

Valentyna Bondarenko[4]

Valeriy Zhamardiy[5]

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[1]Ph.D. in Pedagogics, Associate Professor of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

[2]Doctor of Pedagogical Sciences, Professor, Head of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

[3]Ph.D. in Pedagogics, Associate Professor of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

[4]Ph.D. in Pedagogics, Associate Professor of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

[5]Doctor of Pedagogical Sciences, Associate Professor of the Department of Physical and Rehabilitation Medicine, Poltava State Medical University, Poltava, Ukraine.

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[1]Ph.D. in Pedagogics, Associate Professor of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

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[3]Ph.D. in Pedagogics, Associate Professor of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

[4]Ph.D. in Pedagogics, Associate Professor of the Department of Theory and Methodology of Physical Education, Adaptive and Mass Physical Culture, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

[5]Doctor of Pedagogical Sciences, Associate Professor of the Department of Physical and Rehabilitation Medicine, Poltava State Medical University, Poltava, Ukraine.

Email: oksana.danisko76@gmail.com[1], kornosenko@ukr.net[2], irinavad.tar.ko@gmail.com[3], bond_val_vl@ukr.net[4], Shamardi@ukr.net[5]

ABSTRACT

The relevance of the research is determined by the contradiction that arose between the need to develop the project competence of physical culture specialists to be during work placement internships and the lack of experience in using the Google Classroom cloud service as a technology for its development. The aim of the study is to carry out an analytical review of the effectiveness of the use of cloud technologies in the process of development of project competence of physical culture specialists to be during work placement internships. The basis of empirical research was Poltava V. G. Korolenko National Pedagogical University. The study was conducted in 2021–2022 study years. The pedagogical experiment was carried out in two stages – ascertaining and formative. Involved 126 students (70 students from specialty 014.11 Secondary Education (Physical Culture) and 56 students from specialty 017 Physical Culture and Sports). Also, 12 teachers of professional disciplines, who performed the functions of methodologists and consultants, took part in the research. Research methods: analysis of scientific and methodical literature; pedagogical observation; pedagogical experiment; pedagogical testing; methods of mathematical statistics. In the end of the experiment, it was found that in the experimental group the high level of development of project competence of the students increased significantly – from 8,2 % to 23,0 %, but the low level significantly decreased (by 29,6 %) – from 44,3 % to 14,7 %; in the control group, 12,3 % of students acquired a high level, and the low level decreased to 35,4 %.

Keywords: project competence, work placement internship, physical culture specialists to be.

INTRODUCTION

Higher education, focused on the individual path of professional training of youth and the student-centered model of organization of the educational process, should be flexible, take into account modern trends in the labor market and the requirements of stakeholders for the level of education of specialists, and ensure their high competitiveness. The requirements of the state standards for the professional training of physical culture specialists to be show a clear need for the formation of project competence of students as the ability and capacity to plan and implement their own professional activities. To achieve this goal, a complex of pedagogical tools is used, in particular the potential of work placement internships, during which competences corresponding

to qualification requirements are developed.

In pedagogical studies, the concept of project and project activity is considered in different aspects: in a broad sense, the projects are defined as any type of coordinated actions that lead to changes; in a narrow way, a project is defined as a process, a set of certain actions, a type of certain activity, and as production. Therefore, project competence is developed in the course of project activity, which is considered to be an organized work on the creation of an original product (project) that is aimed at the development of essential abilities, skills and personal qualities of today's competitive specialist.

In this context, a work placement internship is a type of project activity, because it is clearly planned, has specific terms and involves the performance of tasks that provide a student with an opportunities for revealing of creative potential, self-realization, professional development, and gaining experience in independent cognitive activity; for a teacher, it is a method that allows to transform theoretical knowledge into professional experience, to develop competitive skills and abilities in students, and a desire for self-education. On the basis of the analysis of educational programs for the training of physical culture specialists, scientific and methodological literature, it was found that the central aim of work placement internships is to improve professional competence, to acquaint with the specifics of the conditions of professional activity, to gain in experience, to develop personal style of activity and leadership, and a responsible attitude to work. Despite the importance of work placement internship for professional growth and gaining experience of a specialist to be, its organizational feature is the predominant management by a teacher or an instructor and only fragmentary consulting assistance from a methodologist of a higher educational institution. This situation complicates the development of project competence, because the methodologist cannot directly observe the activities of the interns, make the necessary corrections in time, ensure self-reflection of the interns and give them a feedback.

At the same time, modern trends in digitalization of the educational sphere require the development of new approaches to the organization of a practice-oriented educational process. Blended learning is one of the innovative solutions. Compared to traditional learning, it has a number of advantages. In particular, it provides the opportunity to study at a convenient time, and develops responsibility, the ability to make independent and productive decisions in non-standard situations, activity and creativity, etc. The concept of mixed learning orients the training of physical culture specialists to be to the extending of the theoretical, methodical and motor facilities used in the classroom, increases the ability to learn throughout life and improve the acquired qualifications with a high degree of autonomy. The use of learning management systems, digital didactic tools and cloud services in the educational environment ensures the integration of theoretical and practical, classroom and distance components of the process of professional training of physical culture specialists to be during work placement internships. One of the innovative tools that allows integrating theoretical and practical, classroom and distance components of the process of professional training of physical culture specialists to be during work placement internships and can be used to organize elements of dual education system is Google Workspace – a system of cloud services for joint activities.

The problem of development of project competence of students today is in the limelight of many foreign (Barron et. al., 1998; Barak et. al., 2000; Guo et. al., 2020; Parrado-Martínez et. al., 2020) and domestic (Shcheglova, 2016; Zhamardiy et al., 2019; Bilyk et. al., 2021) researchers. In general, it can be noted that the authors, relying on the concept of project, project activity and project method, define project competence as an integrative dynamic quality of a person that characterizes the ability and readiness of the graduate to carry out planning, forecasting, modeling, implementation and management of innovative professional activities.

Some aspects of the use of project technologies as an interactive method and mean of professional training of physical culture and sports specialists to be were investigated by such scientists as (Obedkova et. al., 2020; Zhamardiy et al., 2020; Khomenko et. al., 2021; Kryshtanovyc et. al., 2021; Emetc et al., 2022; Shkola et al., 2022) and others, however, the problem of the development of project competence of students has not found adequate representation in domestic scientific literature.

It is also worth noting the works of scientists in which the peculiarities of using of blended learning for project interaction are highlighted. In particular, the results of a study by foreign scientists (Cabi et. al., 2019) proved that e-learning improves the academic skills of the students. The scientists (Garrison et. al., 2005) experimentally proved that the structure of an electronic course and objective assessment contribute to the improvement of the quality of education in higher educational institutions. Researcher (Wang, 2017) found that blended learning varies a set of effective didactic tools for educational process participants. In the opinion of the foreign researcher (Samerkhanova et. al., 2016), the effectiveness of the organization of productive project activities increases significantly under the conditions of creating a joint information and educational environment based on network services and opportunities for full-fledged networking of students and teachers in this environment.

The scientists emphasize that one of the most popular online learning platforms that allows creating an information environment for a higher educational institution and developing project activities is the Google Workspace cloud services system (Allen et. al., 2002; Shaharanee et. al., 2016; Panggayuh et. al., 2022). The analysis of the current state of study of this matter proved that the issue of using cloud technologies in the

process of training of future physical culture specialists in the domestic scientific literature was investigated by (Griban et. al., 2018; Denysova et. al., 2018; Danysko et. al., 2019; Kornosenko et. al., 2020) and other researchers. However, the problem of development of project competence for the basis of hybrid methods and technologies of Google Workspace in the system of professional training of physical culture teachers to be in the course of work placement internships remains unexplored.

MATERIALS AND METHODS

The aim of the study is to carry out an analytical review of the effectiveness of the use of cloud technologies in the process of development of project competence of physical culture specialists to be during work placement internships.

To determine the effectiveness of the development of project competence of physical culture specialists to be and resource support for their project activities, a pedagogical experiment was organized during work placement practice. Work placement internship, aimed at the development of professional competence of physical education teachers and trainers to be, takes place in the VII semester (total internship time – 270 hours / 9 credits) and lasts six weeks. The research began in February 2022 and was completed in June 2022.

The pedagogical experiment was carried out in two stages – ascertaining and formative. It was carried out on the basis of Poltava V. G. Korolenko National Pedagogical University (Ukraine) and involved 126 students (70 students from specialty 014.11 Secondary Education (Physical Culture) and 56 students from specialty 017 Physical Culture and Sports). Of them, 61 students were in the control group (CG1 – before the experiment, and CG2 – after the experiment) and 65 students in the experimental group (EG1 – before the experiment, and EG2 – after the experiment).

Also, 12 teachers of professional disciplines, who performed the functions of methodologists and consultants, took part in the research. Students of the control group undertook an internship in the traditional format, and students of the experimental group – in the mixed one, which included the use of the Google Classroom cloud platform as a resource support for project activities and a tool for the development of project competence. In this way, with the help of the list of tasks for students in EG1, open access to educational materials was provided and the appropriate cloud services were organized and selected to ensure remote interaction in the triad: a group of fellow students – a teacher / an instructor – a methodologist of higher educational institution (Table 1).

Table 1. Peculiarities of the organization of work placement internship in control and experimental groups

Task type	Task flow	
	CG	EG
Pedagogical analysis of physical education lessons / training sessions	Attending lessons / training sessions at internship bases	Viewing the video catalog of lessons or training sessions of the best coaches / teachers of physical culture of the Poltava region, posted on Google Drive and the educational portal PHYSICAL EDUCATION.info.hab (https://cutt.ly/TMgpLoA)
Development of a plan of a lesson / training session	Printed copies	Electronic copies in the Google Document service
Development of an annual scheduled plan, a calendar plan for the distribution of educational material	Printed copies	Electronic copies in the Google Sheets service. Regulatory and legal support for the organization of educational and training classes (Laws of Ukraine, normative acts, programs), posted on the educational portal PHYSICAL EDUCATION.info.hab (https://cutt.ly/TMgpLoA)
Report on sports competitions	Printed copies	Video recording with the possibility of broadcasting on the YouTube service
Protocols for pulsometry and timing	Printed copies	Presentation of experience in the Google Presentation service
Completion of reporting documentation	Internship materials (summaries, planning documents, photos, competition protocols, report) are provided to the teacher in printed form with the signature and assessment by the teacher / methodologist coach on each copy	Internship materials (lesson plans, planning documents, competition protocols, report) are stored in the electronic copies in a shared folder of the virtual class; in addition, videos and presentations are posted on a shared virtual whiteboard with mandatory mutual assessment by the interns; lesson plans and timing protocols are provided for commenting and editing by the students, teachers / instructors and methodologists of higher educational institutions, and evaluation according to certain criteria

Work placement internship for educators to be takes place on the basis of general secondary educational institutions; for future coaches – on the basis of specialized sports schools. Work placement internship is aimed at direct involving students in various activities (educational, training, methodical, mass sports, healthcare, communication, management, etc) and contributes to the development of project competence when conducting individual parts of the lessons or the full lesson. Undertaking an internship, in conditions as close as possible to professional activity, the student performs the functions of a teacher or a sports coach. In the process of undertaking this internship, students learn to apply the acquired knowledge in real professional situations, to create educational and methodological documentation, to organize educational, training and healthcare work, to search for information with the involvement of modern information technologies, etc. Management of various types of educational activities gives students the opportunity to correlate, compare and re-understand theoretical information, master practical skills and abilities in setting goals and objectives, designing, planning, correcting and analyzing the obtained results, reflecting on their level of mastering methods of managing the educational process, etc.

To monitor the dynamics of the development of the project competence of physical education specialists to be during work placement internships, we developed four criteria (creative and gnoseological, information and communication, constructive, control and prognostic) with indicators and distinguished four levels (unsatisfactory, low, sufficient and high).

The creative and gnoseological criterion provides for the following indicators: systematicity and strength of basic knowledge from the cycle of disciplines of professional and practical training; knowledge of modern technologies of physical culture and health, and educational activities with students; knowledge of the organization of the safe stay of children in children's and youth sports, educational and health institutions; the development of creative individual style of professional activity and leadership. Information and communication criterion with the following indicators: the ability to process data using modern information and communication technologies to check the health status, functional indicators and physical qualities of children; ability to work with computer software for training and self-improvement; the ability to effectively develop a communication strategy and use special terminology during events and lessons. Constructive criterion with the following indicators: the ability to plan educational, sports and healthcare activities; use innovations in the organization and conduction of lessons and hosting of events. Control and prognostic criterion with the following indicators: knowledge of methods for checking the state of body systems during training; the ability to solve complex case problems and problems of psychological and pedagogical nature; the ability to objectively self-assess the results of research and professional activity; the ability to collect and process information for further selection of methods and tools.

The levels of development of project competence of physical culture specialists to be were also determined. A low level (grade in points – 60–74) according to the indicators of the creative and gnoseological criterion characterizes the fragmentation of knowledge, the ability to reproduce theoretical material at the reproductive level; according to the indicators of the information and communication criterion – the imperfection of the ability to plan, undergo and analyze the educational or training process with the use of software and computer technologies, the difficulty of establishing contacts and the use of special terminology; the constructive criterion characterizes the difficulty in applying innovations in the development of planning documents for events, after-school and extracurricular activities; according to the indicators of the control and prognostic criterion, there is mastery of separate methods of assessing the functional state of the organism and the dynamics of physical development, but the difficulty in forecasting and making corrections in planning, based on the results, the difficulty in completing complex case tasks and problems of a psychological and pedagogical nature. A sufficient level (grade in points – 75–89) according to the indicators of the creative and gnoseological criterion is distinguished by the ability to general orientation in the application of basic theoretical ideas, the ability to compare and systematize information, independently apply it in practice; according to the indicators of the information and communication criterion, the ability to use the necessary computer technologies is distinguished, but there is a lack of fluency in the voice when giving commands; the constructive criterion characterizes the desire for creative self-realization and the need for individual self-expression through the use of innovations in professional activity; according to the indicators of the control and prognostic criterion, there is a possession of methods for assessing the state of health and the dynamics of physical development, but there is a lack of experience in applying monitoring results to correct the educational process. A high level (grade in points – 90–100) indicators of the creative and gnoseological criterion characterize the ability to creatively apply the main ideas of the theory and methods of physical education and sports training, and modern healthcare technologies in professional activity; the indicators of the information and communication criterion show developed skills to rationally use computer technologies, verbal and non-verbal communication techniques and special terminology, to establish contact with children; according to the indicators of the constructive criterion, there are the developed ability to use innovations in the organization and conduct of activities and lessons, and expressiveness of the individual creative style of professional activity and its management; the indicators of the

control and prognostic criterion show the formation of ability to select and apply methods and tools for monitoring the functional state of children, to adjust and improve the educational and training process based on the obtained results, and the ability to objectively self-assess the results of scientific and professional activities.
A diagnostic technique was applied to each of the criteria. In particular, the monitoring of the formation of creative and gnoseological criterion was carried out with the help of control tests and pedagogical analysis of the video lesson (prepared by the instructor); the information and communication criterion was checked by analyzing the video presentation and report documentation (a fragment of an educational, training or fitness and health recreation event), which the students prepared during the internship; control over the level of formation of the creative and constructive criterion was carried out on the basis of expert evaluation of lesson plans, annual and calendar planning; the control and prognostic criterion – by analyzing protocols of pulsometry and timing, which make it possible to detect the reaction of the child's body to the load and intensity of the activity.
A set of the following research methods was used in the research process:
1) theoretical – analysis of special and scientific literature, modelling, system-structural analysis, synthesis, comparison, classification, generalization, systematization – for determination of the state of elaboration of the investigated problem, clarification of basic concepts;
2) empirical – testing, surveys, in-depth interviews, pedagogical observation in the finding out the application features of the modern methodological approaches to the development of the system of future coaches' professional training and teachers, constructing of structure of the system of future coaches' professional training and teachers, selection of internal communications between the components of the system and learning environment, which ensure its effective realization; pedagogical experiment (ascertaining, formative);
3) mathematical statistics – for processing experimental data, their quantitative and qualitative analysis. They were used to identify the reliability of the difference between the studied indicators, the correct processing of the results, reflecting them in graphical and tabular forms, conducting experimental testing; descriptive statistics, determination of the statistical significance of differences between groups by correlation analysis by Pearson's method.

RESULTS AND DISCUSSION

Project competence in the scientific literature is considered in both a broad and a narrow sense. In a broad sense, project competence is interpreted as project thinking, awareness of interrelationships between disciplines, ability to self-study, professional and personal development. In a narrow sense, project competence is defined as the ability to create specific projects, conduct independent research, process information and, accordingly, use it in the project. In our study, we will use the definition of the term «project» proposed by the developers of the British Standard for Project Management, who define a project as a unique set of coordinated actions (tasks) with fixed deadlines, performed by a person or group of people to achieve a specific goal.
Practical training is an important component of the development of project competence of physical culture and sports specialists. The student's educational and methodical work, which involves attending lessons conducted by experienced teachers or instructors, as well as independent conducting of lessons, is of particular importance in the process of internship. Physical culture and recreational work includes the intern's participation in the organization and conduct of physical culture and health recreation events and sports competitions (according to the plan of a physical education teacher or an instructor); scientific research work includes conducting a current record of the results of meeting test and regulatory requirements by students or athletes. In order to carry out the stipulated events, an intern prepares the appropriate documentation: a calendar plan, plans of the lessons, regulations on conducting competitions, a plan of an educational event, pedagogical analysis of lessons, etc. The distribution of points for the types of activities on work placement internship is based on the following criteria: the level of theoretical readiness (the semester evaluation of the professional discipline for teachers is «Theory and Methodology of Physical Education» (number of points ×0.3); for coaches it is «Fundamentals of coaching activity» (number points ×0.3); the quality of the performance of practical tasks (intern's diary; performance of the functions and duties of an assistant of a teacher or an instructor; independent conduct of lessons; participation in the organization and conduct of competitions, etc.); the level of conformity of reporting documentation (pedagogical analysis of lessons, plans of lessons, calendar planning documents, etc.); the level of professional personality formation (ethics of behavior, sociability, discipline, tact, determination, creativity, the connection of the student's language culture with speech-motor coordination (the ability to simultaneously show and explain an exercise)).
In Poland, online practical training for students on the following topics is widespread: Physical education teacher: head of the club, sports section; Physical education instructor; Head of physical education; Teacher of the basics of health; Instructor in physical education of a preschool education institution; Trainer (trainer-teacher).
In order to obtain objective conclusions about the effectiveness of the experimental work on the development of project competence of physical culture specialists to be by means of cloud technologies, we compared the state of the study indicators before and after the experiment. Comparing the results of experimental and control

groups (independent samples) will also contribute to the validity of research conclusions. To obtain reliable data during the experiment, we observed the following conditions: homogeneity of the study groups; identity of experimental conditions; sufficient number of observations; the presence of a control group; adequacy of the selection of methods of mathematical processing of materials.

All quantitative data as a result of the study of the level of development of project competence of physical culture specialists to be were supplemented with a qualitative analysis of the expert evaluation of the results of the students' activities, carried out by the involved experienced teachers of higher educational institutions and teachers / instructors (Table 2).

Table 2. Level of development of project competence of physical culture specialists to be before the experiment

Levels	Experimental group before the experiment (EG 1)		Control group before the experiment (CG 1)	
	Number of students	%	Number of students	%
High	5	8,2	6	9,2
Sufficient	29	47,5	30	46,1
Low	27	44,3	29	44,7
Total	61	100	65	100

Hereinafter, we will provide data on the criterial and structural monitoring of the levels of the development of project competence of physical culture specialists to be after the formative experiment in the experimental and control groups (Table 3). At the same time, we do not focus on similar data we got before the experiment, since the approximate homogeneity of both groups based on the results of the initial data point has been statistically proven above.

Table 3. Changes in the development of project competence according to the criteria in experimental and control groups before and after the experiment

Criteria	Levels	EG 1		CG 1		EG 2		CG 2	
		Students	%	Students	%	Students	%	Students	%
Creative and gnoseological	high	5	8,2	5	7,7	13	21,3	8	12,3
	sufficient	31	50,8	32	49,3	36	59,0	33	50,8
	low	25	41	28	43	12	19,7	24	36,9
	total	61	100	65	100	61	100	65	100
Information and communication	high	4	6,5	6	9,2	18	29,5	8	12,3
	sufficient	25	41	25	38,5	40	65,5	27	41,5
	low	32	52,5	34	52,3	3	5,0	30	46,2
	total	61	100	65	100	61	100	65	100
Constructive	high	6	9,8	6	9,2	14	23,0	8	12,3
	sufficient	31	50,8	31	47,7	38	62,3	36	55,4
	low	24	39,4	28	43,1	9	14,7	21	32,3
	total	61	100	65	100	61	100	65	100
Control and prognostic	high	6	9,8	8	12,3	13	21,4	11	16,9
	sufficient	28	45,9	32	49,2	37	60,6	35	53,8
	low	27	44,3	25	38,5	11	18,0	19	29,3
	total	61	100	65	100	61	100	65	100

The analysis of the data in Table 3 makes it possible to state that in the experimental group the high level of development of professional competence of the students increased significantly – from 8.2 % to 23.0 %, and the low level significantly decreased (by 29.6 %) – from 44.3 % to 14.7 %.

In order to check the reliability of the obtained data, we calculate the criterion $\chi^2_{\text{емп}}$ for the control and experimental groups after the experiment according to formula (3.1), substituting the data from Table 3:

$$\chi^2_{емп} = 61 \cdot 65 \cdot [(\frac{14}{61} - \frac{8}{65})^2 /(14+8) + (\frac{38}{61} - \frac{34}{65})^2 /(34+34) + (\frac{9}{61} - \frac{23}{65})^2 /(9+23)] = 7{,}943481$$

$$\chi^2_{емп} \approx 8{,}0,$$

$$\chi^2_{емп} \approx 8{,}0 > 5{,}99 = \chi^2_{0{,}05}$$

The null hypothesis is rejected and the alternative hypothesis is accepted that the significant difference obtained in experimental and control groups is a consequence of the use of interactive cloud services in the process of experimental research work. The reliability of the difference in the characteristics of experimental and control groups after the end of the experiment is 95%.
The results of the experimental research work, by summing the average arithmetic value according to the four criteria defined by us, made it possible to obtain the general values of the indicators of the development of the studied phenomenon and their dynamics, which is shown in the table 4.

Table 4. Changes in the development of project competence of physical culture specialists to be before and after the experiment (in %)

Levels	EG 1	EG 2	Changes	CG 1	CG 2	Changes
High	8,2	23,0	**+14,8**	9,2	12,3	**+3,1**
Sufficient	47,5	62,3	**+14,8**	46,1	52,3	**+6,2**
Low	44,3	14,7	**-29,6**	44,7	35,4	**-9,3**

The reliability of the obtained results was determined by the method of variation statistics. A statistical analysis was conducted to check the results of the initial level of development of professional competence of physical culture specialists to be.
Since the factual data was collected using an ordinal scale with L=3 grades, and the sample size is greater than 50, we will use the homogeneity criterion (Pearson criterion) (Zheleznyak et. al., 2008).
Let's formulate the null hypothesis H_0: there are no significant differences in the characteristics of development of professional competence among physical culture specialists to be in the experimental and control groups.
Alternative hypothesis H_1: there are significant differences in the characteristics of development of professional competence among physical culture specialists to be in the experimental and control groups, which cannot be the result of random circumstances.

The empirical value of the criterion χ^2 is calculated according to the following formula:

$$\chi^2_{емп} = \mathrm{N} \cdot \mathrm{M} \cdot \sum_{i=1}^{L} \frac{(\frac{n_i}{N} - \frac{m_i}{M})^2}{n_i + m_i}, \qquad (1)$$

where, $\chi^2_{емп}$ is the empirical value;
N is the total number of people in the experimental group (N=61);
M is the total number of people in the control group (M=65);
n_i is the number of students in the experimental group who have reached a certain level of professional competence development;
m_i is the number of students in the control group who have reached a certain level of professional competence development;
L is the number of levels of development of professional competence (in our case, L=3).
Let's substitute the experimental data from table 1 into the formula.
Before starting the experiment, it is necessary to check that the control and experimental groups belong to the same general population. To do this, we will calculate $\chi^2_{емп}$ for the control and experimental groups and compare it with the critical value of the criterion.

$$\chi^2_{емп} = 61 \cdot 65 \cdot [(\frac{5}{61} - \frac{6}{65})^2 /(5+6) + (\frac{29}{61} - \frac{30}{65})^2 /(29+30) + (\frac{27}{61} - \frac{29}{65})^2 /(27+29)] = 0{,}1201395$$

$$\chi^2_{емп} \approx 0{,}13.$$

The critical value at the significance level of 0,05, i.e. $\chi^2_{0,05}$ for L=3 according to the tables is equal to 5,99.

Let's compare $\chi^2_{емп}$ with the critical value χ^2:

$$\chi^2_{емп} \approx 0{,}13 < 5{,}99 = \chi^2_{0,05}.$$

Thus, the hypothesis H_0 is accepted. It can be concluded that the control and experimental groups at the beginning of the experiment belonged to the same general population and a significant difference in their characteristics of the level of development of project competence was almost not detected.
So, in the course of the research, it was found that the experimental and control groups are homogeneous; noticeable differences in the level of project competence of physical culture specialists to be according to

substantiated criteria were not found. In both groups, an insufficient level of development of project competence was established.

A confirmatory study on professional training issues gave grounds for the conclusion that work placement internships are of exceptional importance for physical culture specialists to be. Due to internships, specialists to be learn to organize cooperation and co-creation with students and colleagues, work effectively in a team, and study communication strategy; they master communication techniques and the use of these techniques when working with a team and each person; analyze socially and personally significant worldview problems, make decisions based on established value guidelines, solve production tasks, etc.

Thus, the results of the research proved that the level of development of professional competence of physical culture specialists to be underwent positive changes according to the creative and gnoseological criterion in both experimental and control groups. However, there is an insignificant growth of its indicators in the control group (as at the beginning of the experiment in both groups). The advantage in the dynamics of the experimental group is explained by the opportunity for students to study in exemplary classes conducted by the best specialists in their profession. With the help of video monitoring, one can view lessons multiple times, take notes of the necessary fragments, listen to the commands and orders given by the teacher or instructor, consider in detail the technology of teaching physical exercises, etc. These didactic opportunities significantly enrich the terminological literacy of specialists to be, strengthen their theoretical knowledge, in particular, knowledge of modern technologies of physical culture and healthcare activities and the organization of the safe stay of children in sports and educational institutions, and contribute to the formation of a creative individual style of professional activity and leadership.

The most significant changes in the experimental group compared to the control group were recorded according to the indicators of the information and communication criterion. We justify this result by the fact that the students learned to process data using modern information and communication technologies, to check health status, functional indicators and physical qualities of children. The use of computer technologies contributed to the development of the ability to effectively form a communication strategy and use special terminology during events and lessons. Also, the use of the Google Classroom cloud service significantly increased the computer literacy of specialists to be, which makes them more competitive in the labor market.

Also, slight advantages of the experimental group over the control group in the level of development of project competence were recorded according to the indicators of the constructive criterion. The differences in indicators are interpreted as the development of the ability to plan educational, training, sports and healthcare activities, and to use modern technologies when organizing and conducting lessons and events. These opportunities are created by unlimited access to information sources that are methodically competently selected by university teachers.

High results, both in the experimental and in the control groups, are also observed in the indicators of the control and prognostic criterion. More positive changes in the experimental group are due to an increase in the level of methodical knowledge, which allows to control and assess of the development of motor qualities of children, the ability to solve complex case problems and problems of a psychological and pedagogical nature, to collect and process information for further selection of methods and tools.

In order to resolve this contradiction, we decided to create a network community by means of cloud training management systems during the work placement internship. One of these systems is Google Classroom – a component of the Google Workspace cloud platform, which contains a free set of interactive tools (storage, mail, documents, presentations, tables, survey forms, virtual whiteboards, etc.). Analyzing the educational potential of this platform, scientists (Ventayen et. al., 2017; Panggayuh et. al. 2022) proved its functionality and convenience in educational and independent activities, and therefore recommended it for use in higher educational institutions. Our research also used the capabilities of Google Classroom as a tool for storing and transmitting information, including the placement of organizational and methodical support for practical training, requirements for the performance of practical tasks, video lessons on conducting lessons and training sessions, educational events, etc. In order to create favorable conditions for the professional development and improvement of students, the educational portal «PHYSICAL EDUCATION.info.hab» (https://cutt.ly/TMgpLoA) was created. The educational portal contains information resources on the organization of physical culture educational process in the system of general secondary education, as well as program and normative documents for the development of physical culture and sports in Ukraine, video materials on the organization of sports events, fitness marathons, competitions, etc., and provides additional opportunities for students in expanding and deepening knowledge of an organizational and managerial nature.

During the analysis of students' views on the ease of using Google Workspace tools in the educational process, (Kakoulli-Constantinou, 2018) found that students perceive this cloud-based educational platform positively both from the point of view of ease of use and its didactic potential. The pedagogical experiment conducted by us also proves 100% interest of students in using Google Workspace tools and the comprehensibility of this cloud program. It is also confirmed by the effectiveness of tasks performed by students during industrial practice.

Scientist (Shampa, 2016) attributes ease of use, time saving, free of charge, flexibility, convenience for mobile devices to the main advantages of using Google Classroom. Research by (Shaharanee et. al., 2016) proved the effectiveness of organizing the educational process in the Google Classroom virtual room. In particular, accessibility, wide opportunities for educational interaction and cooperation, organization of instructional materials, as well as a high level of satisfaction of applicants with active educational activities were confirmed. We agree with the opinion of scientists regarding the simplicity, accessibility and efficiency of using cloud services. It is worth noting that the level of development of project competence of students who studied with the help of Google Classroom increased according to all criteria.

Researchers (Suparman et. al., 2022) advanced the idea on the tools of the Google Classroom that contribute to the involvement of students in various types of joint learning, in particular, project activities. The stated opinion confirms the research of scientists (Randy et. al., 2018) who investigated the Google Classroom environment as a learning management system and proved its effectiveness in organizing group learning, as well as development of a project competence of students. In our study, we understand the concept of "project" as a unique set of coordinated tasks with fixed deadlines, which are carried out by students to achieve a specific goal. Accordingly, project competence, as a set of theoretical knowledge and practical skills formed in the course of work placement internship, requires a detailed organization that a Google Classroom can provide.

CONCLUSIONS

The implementation of innovative technologies in educational process ensures the effective development of universal, general professional and professional competences of students. Project competence is a key characteristic of a physical culture specialist to be, which determines his/her ability and capacity to independently create and implement projects, coordinate his/her own activities, and effectively solve professional tasks. The development of this competence by means of cloud technologies during work placement internships allows the resolution of contradictions between the needs of a rapidly changing modern society and the practice of professional training of physical culture specialists to be. Work placement internship is a type of activity during which project competence is developed by direct involvement of students in the planning, organization and control of future activities by profession, and its modeling in specific conditions. The preparation of work placement internship materials by the students includes the search for materials, the study of scientific and methodological literature, its analysis and systematization, and on this basis, the development of author's educational materials in the given conditions (creation of shared documents, presentations, videos, infographic objects, etc.), their presentation and approval in real conditions, with further reflection of the acquired experience. The use of cloud technologies as the means of interaction and resource support of students, instructors / teachers and methodologists during work placement internships ensures the joint use of educational materials, access of all participants of work placement internship to typical educational tasks and algorithms for their solution, the integration of various services for managing the educational process and the organization of various types of network communication; allows to systematize the results of the independent work of students, to generalize, deepen and expand the knowledge obtained during work placement internship. The research proved that the organization of work placement internship at a higher educational institution with the use of cloud technologies is a factor in the effective development of project competence of physical culture specialists to be and the improvement of the quality of professional training in general.

Prospects for further research may be related to the study of the didactic potential of smart technologies and their practical prospects for the organization of high-quality professional training of physical culture and sports specialists to be.

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