

LANGUAGE, CULTURE, COMMUNICATION**EXPERIMENTAL SYSTEM OF VOCATIONAL TRAINING
OF PHYSICAL CULTURE TEACHERS FOR ORGANIZATION
PUPILS' INDIVIDUAL WORK****Oleksandr Aliksieiev**

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Summary

Article outlines methods of introduction of experimental system of vocational training of future physical culture teachers for organization of individual work with pupils. It has been underlined that introduction of the developed system provided for the reasonable selection, structuring and construction of the content of study material in selected disciplines taking into account a purposeful influence on the formation of each component of readiness of future physical culture teachers for organization of individual work with pupils. In the process of research and experimental work it was taking into account that under the selection and structuring of the content of academic disciplines should be understood: strict definition of structure elements that make up the discipline; applying the procedures of optimization for each of these structural elements; establishing and maintaining in optimal state connections and interrelations between elements of the structure of academic discipline in accordance to the integrative criteria for evaluating the effectiveness of its construction. Methodical peculiarities of introduction of the developed system have been outlined. Realization of experimental system of vocational training of future physical culture teachers for organization of individual work with pupils was carried out on the basis of a number of fundamental postulates – principles. Given the complexity and versatility of the process of vocational training of future physical culture teachers for organization of individual work with pupils, principles of research activities have been systematized into some complex. In particular, it was decided to structure the principles into three blocks, each of them regulates the experimental activity or specifies the logic of selection of the essence of certain elements of the author's pedagogical system.

Keywords: future physical culture teachers, students, experimental check, system, components, readiness for organization of individual work with pupils.

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1. Introduction

Introduction of experimental system of vocational training of future physical culture teachers for organization of individual work with pupils based on the implementation of experimental methods of such a process. This, at the same time, provided for the implementation in the educational process of certain pedagogical conditions and use of structural-functional model of the developed system. Methods of vocational training of future physical culture teachers for organization of individual work with pupils are reflected in the logic of organization of the third, executive stage of the experimental study, has being lasted for 4 years and observed the following steps:

- the experimental methods of realization of the author's system of vocational training of future physical culture teachers for organization of individual work with pupils have been developed and tested;
- the forming stage of scientific research was carried out, in the process of which an experimental test of the hypothesis, conceptual provisions, the efficacy of pedagogical system, pedagogical conditions and structural-functional model of vocational training of future physical culture teachers for organization of individual work with pupils has been carried out;
- approbation of the author's methods for purposeful formation of students' readiness for organization of individual work with pupils in future professional activity has been carried out;
- possibilities of using means, resources of developing environment of the institutions of higher pedagogical education in vocational training of future physical culture teachers for organization of individual work with pupils during conducting trial experimental and open classes according to innovative methods, have been analyzed;
- on the basis of using methods of observation, interviews, survey, questionnaires, analysis of the efficacy of activities of different structure components of the developed system the prognostic substantiation of its development has been done.

Taking into account the system nature of key provisions of the process of vocational training of future physical culture teachers for organization of individual work with pupils, in the context of the research, the verification has been carried out by empirically verifying its individual components in terms of achieving the ultimate purpose.

2. Peculiarities of experimental system implementation

Due to the necessity of ensuring the effectiveness of pedagogical studies, within the framework of scientific intelligence relied on the thesis that the pedagogical experiment should be conducted optimally (*Titova, 2-17; Shapovalova, 2014*), that is, with the minimum necessary time and efforts of the experimenter (*Drahniev, 2013: 138*). In this order the theories of planning pedagogical experiments, in particular, the works of Yu. Tanasiichuk, have been analyzed (*Tanasiichuk, 2021: 109*). The researcher argues that the most appropriate in terms of implementation of innovations in the educational process of higher education is the classification of experimental plans in the presence of control and experimental groups:

- experimental plans, which involve the use of control group;
- experimental plans, where only control groups take part.

In the context of scientific study it seems appropriate to choose the first type of experimental plan to verify the effectiveness of implementation of the author's system, pedagogical conditions and structural-functional model of vocational training of future physical culture teachers for organization of individual work with pupils. For this purpose, students were divided into control (CG) and experimental (EG) groups.

The division of students into EG and CG was carried out taking into account a number of factors, compliance with which provided the most equal conditions for the entry of future physical culture teachers in the pedagogical experiment. Such features are: almost identical quantitative composition of students and digital indicators of formation of all components of readiness of future physical culture teachers for organization of individual work with pupils in both categories of groups.

The entry level of readiness of future physical culture teachers for organization of individual work with pupils was determined by students of control and experimental groups at the stage of input control (further – IC) by using special diagnostic tools (questionnaires, polls, tests in the discipline of «Physical Education», etc.). The expediency of such a division of students into CG and EG was confirmed by the results of the entry level of formation of readiness of future physical culture teachers for organization of individual work with pupils.

3. Methodical aspects of implementation of the author's system

It should be noted that the implementation of the developed system provided for the reasonable selection, structuring and construction of the content of study material of the selected disciplines, taking into account the purposeful influence on the formation of each component of readiness of future physical culture teachers for organization of individual work with pupils.

In the process of the research and experimental works it was taken into account that the selection and structuring of the content of academic disciplines should be understood that:

- the first is clear definition of the structural elements that make up the content of the academic discipline;
- the second is applying the optimization procedures to each of these structural elements;
- the third is establishing and maintaining in the optimal state of connections and relations between the elements of the structure of the academic discipline in accordance with the integrative criteria for assessing the effectiveness of its construction.

In determining the procedures for selection and structuring of the content of academic disciplines in the study, we relied on scientific investigations of D. Bermudes (*Bermudes, 2016*), Yu. Drahniev (*Drahniev, 2013*), V. Ishchuk (*Ishchuk, 2014*) and others. Thus, scientists propose within this procedure to carry out:

- the identification of the general goals of activity;
- the concretization of tasks, choice the best content of work by determining the main, essential knowledge;
- the choice of effective forms, methods, means and technics, taking into account the existing material and technical possibilities.

Theoretical analysis of the problem of selection and structuring of the content of academic disciplines gave the opportunity to do transformation of study information concerning anatomical, physiological, physical, anthropometric and methodical features of the organization of individual work with pupils, at three levels:

- a) element by element – clarification of goals for structuring the training course; adequate reflection of goals and tasks in the content of academic discipline; identification of didactic readiness of the subjects of education (that are the physical culture teachers) for implementation of the content of academic discipline in the real educational process; selection and optimal combination of different types of learning and cognitive activities, means and methods of study; use of better organizational forms of studying academic discipline;

б) content-subjective – determination of the compliance of all structural elements of the content of academic discipline and making adjustments to its construction; rational use of temporary and other reserves; analysis and evaluation of the effectiveness of the process of teaching the discipline and the correction on this basis of all elements of the system in order to achieve optimal results;

в) interdisciplinary – establishing interdisciplinary relations and using the capabilities of the last ones in the purposeful formation of readiness of future physical culture teachers for organization of individual work with pupils; formation of integrative courses, which give the possibility of holistic presentation and study of problems of professional activity of physical culture teacher during the differentiation and individualization of pupils' physical education; creation of special didactic materials that reveal the features of the created courses; taking into account practical direction of the content of educational courses.

Such research and experimental work gave the opportunity to clarify the goals in the process of selecting the content of academic disciplines selected for experimental research and to attach the selected goals to the purpose of studying the announced courses. The defined goals were directed to the development of cognitive activity of students; formation of innovative pedagogical thinking; cognition by students the necessity in continuous self-development in the innovatization of means, forms, methods and techniques of organization of individual work with pupils, etc.

At the same time, the outlined goals made it possible to find out that the important element and a necessary condition for optimizing the selection and structuring of the content of academic discipline is the constant updating of educational and methodological support. To this end, in the process of implementing the formative stage of the research there was a systematic improvement of the content of selected academic disciplines by clarifying the normative part, expanding the national-regional (sectoral) component, using reserves of additional and optional part of the content of disciplines.

It should be mentioned that future physical culture teachers, who were the participants of CG, studied the disciplines selected for the experimental research during the executive (formative) stage of our scientific exploration according to traditional methods in accordance with generally accepted curricula. Training of EG students was carried out on the basis of the use of the author's experimental methods of system implementation, pedagogical conditions, structural-functional model of vocational training of future physical culture teachers for organization of individual work with pupils.

4. Principles of experimental system

Implementation of experimental system of vocational training of future physical culture teachers for organization of individual work with pupils was carried out basing on a number of basic postulates – principles. The principle in modern pedagogical science is understood as «initial didactic provisions that reflect the course of objective rules and patterns of the learning process and determine its direction in the development of personality» (Karchenkova, 2006: 69). Rules take a lower place in the hierarchy of pedagogical theory and is a transitional link from theory to practice (Tanasiichuk, 2021: 39).

The given explanations were taken into account within the research. Considering the complexity and versatility of the process of vocational training of future physical culture teachers for organization of individual work with pupils, *principles* of research actions have been systematized into a certain set. In particular, it was decided to structure the principles into *three*

blocks, each of which regulates experimental activity or specifies the logic of selection of the content of certain elements of the author's pedagogical system.

The first block contains a set of organizational principles (the principle of humanistic direction in study; the principle of continuity of vocational training of future physical culture teachers for organization of individual work with pupils; the principle of practicality; the principle of unity of educational, developmental and upbringing functions of study in higher education and others). Organizational principles are directed to optimal regulation of lecturers' and student's activities, who were covered by experimental work in the direction of vocational training of future physical culture teachers for organization of individual work with pupils.

The second block – are principles, which reflect general pedagogical postulates of functioning of the educational process in higher education (principles of scientificity, accessibility, clarity, strength of knowledge, skills and abilities, development of students' mental abilities (principle of thoroughness), systematicity, consistency, etc.). Implementation of the complex of mentioned principles ensured the achievement of optimal use of information arrays of disciplines «Theory and Methods of Moving Games and Entertainments», «Theory and Methods of Physical Education», «Human Anatomy with Sports Morphology Foundations », «Therapeutic Physical Training», «Theory and Methods of Teaching Sports Games», «Use of Non-traditional Sports Games in Physical Culture Lessons» and organization of pedagogical communication in educational process.

The third block of instructions transmits a set of specific principles of vocational training of future physical culture teachers for organization of individual work with pupils (the principle of nonlinearity, prevalence of student's autonomy, comprehensive integrativity, etc.). Taking into account the specific principles gives an opportunity to explain the features of organization of students' educational activities of the outlined specialty and to retransmit the author's vision of functioning of the researched process. Let us review the essence of some of them in more details.

The principle of nonlinearity was realized in the process of vocational training of future physical culture teachers for organization of individual work with pupils at three levels: 1) sources of information; 2) structure of learning courses; 3) presentation of educational material.

The next specific postulate of research is *the principle of prevalence of student's autonomy*. The project of The Concept of Education Development of Ukraine for the period 2015–2025 notes that the purpose of higher vocational education is to train a qualified specialist, competent in the field of his/her professional activity, competitive on the labor market, capable of effective work at the level of world standards, ready for continuous professional growth, social and professional mobility, continuous self-improvement and self-development throughout life. Therefore, the priority in the context of current trends in the development of higher vocational pedagogical education in Ukraine and the world socio-economic conditions is the development of abilities and skills of student's autonomy. In addition, the formation of autonomy in the process of obtaining vocational education, according to N. Stepanchenko, determines the emergence of independence of future physical culture teachers in making professional decisions regarding the specifics of the organization of physical training and sports activities of pupils (Stepanchenko, 2017: 126).

Besides, the application of the principle of prevalence of student's autonomy was based on ensuring open access of students to information about the content and structure of learning courses; course tasks and requirements on the performing; knowledge control «points» and evaluation criteria for all types of educational activities; opportunities to use additional education (optional courses, elective courses, information sources, etc.).

To realize the announced principle in terms of quarantine restrictions, the design of the content of training courses was carried out on the basis of the use of information and communication technologies and distance learning tools. Such research actions made it possible providing feedback in the systems of relationship «lecturer – student», «student – student», «student – group», etc.

The next postulate of vocational training of future physical culture teachers for organization of individual work with pupils is *the principle of comprehensive integrativity*. Implementation of the announced principle within the research took place in a few directions; intradisciplinary (horizontal), interdisciplinary (vertical), interpersonal and intersystem integrativity.

Intradisciplinary (horizontal) integrativity in the process of vocational training of future physical culture teachers for organization of individual work with pupils was based on a complex and interrelated formation of knowledge, abilities, skills of students for performing different types physical training and pedagogical professional activities, as well as on the proportional combination of educational material disciplines «Theory and Methods of Moving Games and Entertainments», «Theory and Methods of Physical Education», «Human Anatomy with Sports Morphology Foundations », «Therapeutic Physical Training», «Theory and Methods of Teaching Sports Games», «Use of Non-traditional Sports Games in Physical Culture Lessons», that is relevant and important for solving various pedagogical tasks related to strengthening and maintaining the individual health of schoolchildren, popularization of the paradigm of healthy lifestyle and physical activity through effective selection of means and methods of individualization of physical culture of applicants for general secondary education.

Interdisciplinary (vertical) integrativity of vocational training of future physical culture teachers for organization of individual work with pupils was provided in the process of solving conflicting professionally oriented problems by students, where the search for ideas to solve involved the use of professional knowledge on different disciplines. At the same time, the designed author's tasks integrated the information of the courses chosen for experiment and were developed together with practicing physical culture teachers.

The interpersonal integrativity in the plane of our scientific research was considered as cooperation and co-creation of all participants of the educational process, which was achieved on the basis of ensuring comprehensive openness of the space of dialogical and polylogical interaction of lecturers and students. Implementation of interpersonal integrativity contributed to the personal development of future physical culture teachers through students' participation in various types of cognitive activities (guided self-study, self-education, research, educational creativity, cooperation and collaboration with lecturers/students, etc.)

5. Conclusions

Summing up, we note that the implementations of author's pedagogical system, pedagogical conditions and model of vocational training of future physical culture teachers for organization of individual work with pupils were directed to the complex formation of singled out components of the studied phenomenon by using developmental potential of the environment of institutions of higher pedagogical education. In order to analyze the results of the executive (formative) stage of the experimental study, the final level of formation of readiness of vocational training of future physical culture teachers for organization of individual work with pupils was determined. We think that there is a necessity to highlight the results of statistical data that demonstrate and confirm the effectiveness of the proposed author's system, pedagogical conditions and structural-functional model of vocational training of future physical culture teachers for organization of individual work with pupils.

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