

Research Article

Organization of Theoretical Training Process for Students of Higher Education Pedagogical Establishments in the Physical Education System

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ABSTRACT

The relevance of the problem stems from the need to implement physical and pedagogical activities, determined by social requirements for the realization of the State educational policy priority – the physical culture development of the individual as a factor for its comprehensive advancement.

The purpose is to identify the ways of creating the physical education for teachers of non-physical disciplines. The authors developed a pilot programme of theoretical training for future teachers in physical education system. The leading methods of investigating the problem are scientific reduction methods and theoretical and logical modeling. The article provides an algorithm for organizing physical and pedagogical activities. The authors identify the areas of activity that ensure teachers' competence in the field of physical culture and develop an algorithm for organizing theoretical training in the physical culture of students. Emphasis is placed on revitalizing students by appropriate teaching methods. Introduction of these will optimize the physical education process of teachers of non-physical disciplines. The materials of the research can be useful to teachers at different levels of education, as well as to specialists in the supplementary physical education system.

Key words: physical culture of a teacher, professional readiness, information component, physical and pedagogical activities.

INTRODUCTION

The *objective of the study* is to develop a scientific basis for the content support of theoretical training in the physical education system for students in nonphysical disciplines based on it being in the context of Federal state educational standards.

The concept of 'professional readiness' has recently been used to characterize the activity level. Readiness is accepted as an integral education based on information, functional and motivational components (Adolf 1998, Bospalko, Tatur 1989, Dubrovskiy 2002, Chichikin 1998). The representation of the professional readiness entity is related to the information component of readiness (Chichikin

1998), among others. In a number of studies, the information component of willingness is referred to as competency-based knowledge that determines the outcome of professional activity (Adolf 1998, Atyashev 1991, Bospalko, Tatur 1989, Lotonenko, Sobyenin, Kulikov 2004). The level of theoretical preparedness is the dominant factor in the creation of such competence. Researchers believe that the formation of a teacher's readiness takes place not so much in the process of physical and pedagogical activities as in theoretical learning and reflections on this practice (Anisimov 1991, Bystritskaya et al. 2015, Ritzer 2000).

Gaining knowledge creates the prerequisites for

self-determination, self-development and self-realization of a specialist, and it is an activating factor in the competent implementation of physical and pedagogical activities, which shows the *relevance* of the problem discussed in the article (Atyashev 1991, Kuznetsov, Smirnov 2015, Klimov 2005, Chichikin 1998).

It is alleged that a positive effect in basic (non-special) physical education can be achieved only if the physical education of the students in higher education pedagogical establishments is provided by the information and educational support (Vilenskiy 2004). The value of the physical culture, the needs of its formation and the motivation to engage in the physical culture of others are acquired through the absorption of physical knowledge (Leyfa 2004, Smirnov 2003, Stepanova 2002, Sysoyev 2003, Cardinal 2002). *Research hypothesis:* the development of a scientific basis for a meaningful and procedural ensuring of the theoretical training of students in the pedagogical institute of nonphysical disciplines will help optimize the physical education system and create the necessary conditions for building the professional readiness of the future teacher to address the challenges of physical education and pedagogical activities.

MATERIALS AND METHODS

Glossary. The following concepts served as the leading categories of the study: ‘physical and pedagogical activity of the teacher’, ‘general physical education’, ‘theoretical training’, ‘profiling of theoretical training in the general physical education system of a teacher’.

Physical and pedagogical activity of the teacher is a complex activity that ensure the realization of social needs through inter-subjects and intra-subject interactions (within the framework of social partnership and permissible commitments) in order to achieve the full development of the personality and healthy lifestyles of participants in the pedagogical process by means of physical culture (Vilenskiy 2004).

General physical education is the process and result of the physical education of students in the faculties of nonphysical disciplines. It is one

of the aspects of general professional development in accordance with the Federal state educational standard of higher education.

Theoretical training is one of the directions of physical education of students (along with technical and physical training), which provides for the gaining of physical knowledge and motivation for physical activity.

Profiling of theoretical training in the general physical education system of a teacher is the development of the theoretical training content, of its structuring and the organization of the educational process in space and time, taking into account the social needs and the physical and pedagogical functions of the teacher (Grigoryev 2002).

Methodology of the Study. A research procedure for optimizing the content support of theoretical training can be carried out on the basis of a modeling method. For the traditional approach, the theoretical section content modeling of physical education is characterized by apriority. It contradicts the need for the validity of modeling approaches; the lack of validity is seen as a non-scientific approach (Aleksandrova, Markova 2015, Anisimov 1991, Dmirtiyev 2011, Moiseyev, Moiseyeva 2004).

By its nature, the modeling method is a procedure based on abstract and logical judgments, taking into account the involved theoretical viewpoints (object). They define the justification of the selection criteria, the classification grounds, the reporting system and the guidance analogy. While modeling the content of the theoretical section, carried out in the course of the professional training of students of non-physical disciplines in the pedagogical higher education establishment, it was assumed that this procedure is an indirect theoretical construction of an object, which does not investigate the object itself, but rather a system:

- being in line with the object in an objective manner;
- reflecting certain properties of this object;
- providing information about the object being simulated.

The process of theoretical training of students in the physical education system was based on

the general theoretical principles of education. The definition of their composition lacks the necessary unity of opinion. However, most of the researchers of this problem have in many cases highlighted principles such as humanization, consistency, developing and integrative learning (Aleksandrova, Markova 2015, Atyashev 1991, Bystritskaya et al. 2015, Vilenskiy 2004, Messer 2000).

The main thrust of modern pedagogical ideas is reflected in the humanization principle. The essence of this principle can be defined as requiring that the focus be shifted from the learning resources to the learner. This is possible due to the democratizing relations in the 'teacher-pupil' system, and individualizing informational and communicative influence.

The consistency principle relates to the scientificity. It involves creating reliable knowledge not as a sum, but as a system with personal meaning and allowing it to go beyond standard operating. It is not just the exchange of knowledge that is important, but rather the consistency. The principle of developing education is universal; it does not just imply the development of the trainee (achieving the level of ambition), but also the formation of the capacity for further self-development (the developing pupil). Two courses of action have been identified in the implementation of this principle. The first was to develop existing knowledge in the field of physical culture, the second addressed the challenge of learning new knowledge.

The integrative learning principle defines the demand for vertical subordination (continuity, normativity) and horizontal coordination (own content and inter-subject). The implementation of the integrative principle should be based on a meaningful and procedural provision for the theoretical training of students in the physical education system. The integration of content includes a purposeful balance of topics, means and forms of learning. The integration of procedural support involves the continuity and normativity of the learning process, the relations between the learning system components in space (when) and over time (how many).

These principles have defined the approaches in organizing the process of theoretical training in the physical education system for students in the higher education pedagogical establishments of non-physical disciplines.

RESULTS AND DISCUSSIONS

A survey of teachers in physical education departments has shown that over the past years in the organization of theoretical training in the physical education of students of non-physical disciplines, four models can be singled out (Solovyev 2002, Sulam, Clark 2003, Waltace 2001).

The first model is traditional, used in training for all educational fields. The essence of this model is to use a combination of traditional forms, such as lectures and practical (seminars) classes. At the same time, the means of reporting can be diverse: from the oral presentation to the media. The model assumes the expenditure of time within the academic hours in accordance with the educational-thematic plan. This model has some disadvantages, for example, excessive abstraction of information that makes it difficult to use in the practice of physical and pedagogical activities.

The second model involves a combination of an informational message (on theoretical issues of the planned topic) with practical activity. The number, duration and place of the information messages follow mainly from the content of the topic, the subject matter, the content of the physical training and its place in the system. The means of presentation can also be varied in terms of training opportunities. The main disadvantage of this model is the integrity violation of the information reporting.

The third model, described as modern, is to organize students' independent activities using computer technology: programmed education, programmed monitoring, distance learning, etc. The authors share the opinion that any model of teaching in the specific context of pedagogical activities may be more or less effective. For this reason, the computer technology (including distance learning) should probably not be taken as ultimate effective. In fact, the communicative pedagogical relations of participants in the

educational process are being weakened in the context of computer technology.

The fourth model is characterized by the consolidation of the three aforementioned models. There may be different combinations in this complex, both in equal and in the prevailing ratios; these combinations are defined by the content of the teaching material, the professional preferences of the teachers (professional interests, level of claims, professional competence) and the conditions of the educational process. The latter circumstance is largely the cause of the drawback of this model – the arbitrariness of the choice in determining the composition of the technology mix.

There are no formal criteria to select the best model for organizing training since it is a matter of professional competence and pedagogical skills of a teacher. This assumption was the leading rationale for the organizational and methodical provision of the physical education of students in the pedagogical institute of non-physical disciplines.

In view of the specific nature of the tasks of theoretical training in the physical education of university students, the specifics of the content of each topic and the department possibilities of organizing the theoretical training process, the experimental work involved the use (wholly or partially) of all of the above models.

The process of planning the lecture and practice sessions included setting goals, developing a task system (based on purpose), defining the initial conditions of training, the development of the training technology to be implemented (tools, methods, forms of organization, techniques), designing content and structure of the lessons, logistics and feedback (monitoring of learning success).

The lesson structure was made up of the teacher's organization activities (activation, motivation), presenting the purpose and objectives of the class, referring (if necessary) to previously acquired information, providing new information, stimulating learning, ensuring feedback (monitoring, assessment), guiding the activities of trainees and consolidating information units.

In addition to the monologue and dialogue forms of teaching in the course of the theoretical training of students in the higher education pedagogical establishments of non-physical disciplines, the so-called active methods were used: a project method, a business game and a problem-solving method.

The project method is one of the personal-oriented technologies that integrate a problem-based approach, reflective, research, cognitive, and other actions. The main purpose of the project method is to create an active educational environment. In the implementation of the project method, the scheme presented in Table 1 was used.

The project method was implemented by topics: 'Scenarios and directing of physical activities', 'Design of physical and pedagogical activities in an educational institution', 'Framework of advocacy'.

One of the most effective methods of active learning is the business game. These efficiencies are achieved through a variety of factors inherent in the business game – it promotes encouragement of the formation and realization of knowledge, reorients from abstract-theoretical to practice-oriented knowledge, harmonizes relations among participants in the educational process, creates conditions for individual development of trainees and, finally, draws as much as possible to actual professional activity. Table 2 shows the system of activities of the participants in the business game, which they have taken advantage of.

It should be noted that with the objectives of general physical education, the time limit and the characteristics of the educational curriculum, the business games (with all their efficiency) should be used, as appropriate, in accordance with the scientific principle: the minimum of resource costs to get the maximum result for given conditions and requirements. Therefore, the business games were organized in connection with only two topics: 'Psychological and pedagogical bases for interaction in the physical and pedagogical activities of the teacher' and 'Organization of physical and pedagogical activities in an educational institution'.

The problem-solving method is one of the catalysts for the independent search and systematization necessary to implement professional activity and information. This method, taking into account the characteristics of the theoretical process in the physical education system and the simplicity of design and organization, is the most appropriate for increasing the educational activity of university students; hence this method was the most used.

As an example, the list of issues that were the subject of a training course on ‘Organization of physical and educational activity’ was provided. Issues discussed under the theme of ‘Methodology of general developmental exercises’ were raised. Students were divided into groups during practical classes (the number of groups equals the number of proposed issues); each group was invited to discuss and decide on the following issues:

1. How many exercises should be included in the set of general developmental exercises and why?
2. In what order should the exercises of the complex be carried out?
3. How many repetitions of each exercise should be done?
4. How to relate the selection of exercises to the contents of the physical culture lesson?
5. How to implement the principle of physical activity increasing when using a set of general developmental exercises?
6. How to implement the principle of diversity and variability when using a set of general developmental exercises?
7. What kind of exercises can be in the complex by type of functional impact?

In this example, seven groups (in terms of the number of issues) of students were organized. Each group received one issue for discussion and decision. Operating time was defined (within 10-20 minutes). Then, the leader of each group presented the decision. All proposals in the decision-making process were indicated, and the decision was justified. The teacher has consistently clarified the solutions presented.

Students from other groups participate in the discussion and record final decisions on each issue in the notebooks.

CONCLUSION

Experimental work in testing the effectiveness of the meaningful and procedural provision for the theoretical training of students of non-physical disciplines in higher education pedagogical establishments demonstrated the validity of the proposed methodology and allowed to differentiate students on levels of physical and pedagogical activities. Three levels were identified, which are marked as the starting (first level), intermediate (second level) and effective (third level).

The starting level is characterized by the formation of primary positive attitudes, common perceptions, situational motivation, physical identity, lack of system knowledge and partial ownership of the basic functions of physical and pedagogical activities.

The intermediate level is characterized by the formation of value orientations in physical and pedagogical activities, the basic functions of the physical education and the self-assessment of the level of implementation. The ‘external’ motivation is central to the strengthening of physical and pedagogical activities.

The effective level is characterized by the development of social determinants (system of basic knowledge, norms, contents, requirements, social attitudes, values) of physical and pedagogical activities. The activating factor of the latter is ‘internal’ motivation based on reflection. The elements of professional autonomy, professional mobility and variability in action are demonstrated.

The selected levels and the signs that characterize them can serve as a conceptual basis for the definition of goals, objectives, means, forms of organization, and requirements for the result of physical education for students of non-physical disciplines in higher education pedagogical establishments.

Table 1: Sequencing and functions of participants to implement the

Project method

№	Teacher's activity	Student's activity
1.	Generates a project problem	Understands the project problem
2.	Sets project goals and objectives	Clarifies, specifies the goals and objectives of the project
3.	Creates requirements for organization of work (timing, design, content, presentation)	Plans the work on the project
4.	Creates conditions for project implementation	Develops a project
5.	Provides advice	Identifies issues for consultation
6.	Monitors the progress of work	Reports on preliminary results
7.	Evaluates the project	Presents the project
8.	Summarizes the work on the project	Gives self-evaluation to the project
9.	Adjusts tasks for future use	

Table 2

System of participants' activity for the business game

№	Teacher activity	Student activity
1.	Introduce the game	Clarify the game situation
2.	Choose game participants	Identifies groups and roles, selects leader
3.	Presents the game task	Discusses, consults, refines
4.	Organize the game	Complies with the requirements of the game
5.	Organize the group report	Presents all the proposed solutions (characteristics, criteria for choosing a better option)
6.	Summary	Discusses, clarifies, records final decisions

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