

CRITERIA OF EFFECTIVENESS OF STUDENTS' PHYSICAL EDUCATION SYSTEM IN HIGHER EDUCATIONAL ESTABLISHMENTS

Anikieiev D.M.

Institute of Penal Service

Abstract. *Purpose:* to work out criteria, permitting assessment of physical education in higher educational establishments. *Material:* theoretical analysis and generalization of scientific methodic literature and documents; method of experts' assessments. As experts, 26 professors and associate Professors of higher educational establishments of different profile were invited (13 doctors of science and 13 candidates of science). *Results:* we have generalized the data about effectiveness criteria of physical education, present in program normative documents. We have presented criteria, permitting to quantitatively assess the correspondence of physical education, in higher educational establishments, results to its purposes and tasks. *Conclusions:* the most acceptable method of physical education quality control is regular monitoring of indicators of students' physical condition. Individual target of every student shall be indicators of academic trainings' quality. Analysis of optional lessons' attendance is also very important indicators of quality of students' physical condition.

Key words: physical, fitness, health, expertise, optional, student.

Introduction

In the most general case effectiveness is the level of correspondence of any functioning results to the set task. Risk is a possibility of failure in this functioning [1]. Criterion (from Greek *kriterion* – mean for judgment) – is a sign, on the base of which assessment, determination and classification of something; measure of assessment [4]. Thus, criteria of effectiveness of physical education are understood by us as measures of correspondence of physical education results to the set tasks.

In Article 26 of Law of Ukraine “On physical culture and sports” (adopted in 2009) it is noted: “physical culture in educational sphere shall be targeted at ensuring students and pupils' physical health, complex approach to formation of mental and physical abilities of a personality, perfection of physical and psychological fitness for active life, professional functioning on the base of individual approach, priority of health related orientations, wide usage of different forms and means of physical education and mass sports, continuous character of this process during all life” [10].

Academic program for Ukrainian higher educational establishments of 3rd–4th levels of accreditation [14] defines nine criteria of effectiveness of graduate's physical education and not all of them can be put in the base of exact control methods and assessment of physical education quality. As on to-day there are no clearly determined effectiveness criteria for physical education in higher educational establishments. Decree of the Cabinet of Ministers, dt. November 5, 2008, №992 cancelled tests for assessment of population's physical fitness. Time and practice show that with positive character of intentions, State system of tests was not perfect. For example, Yu. Vykhlaiyev et al. [5] think that except actually important motor qualities of such tests (for example, endurance and strength) they also include not very important for human life qualities (jumping ability, quickness, dexterity, flexibility and swimming). It makes the system bulky and devaluates importance of first two qualities – endurance and strength. So the authors developed alternative methodic of assessment of physical condition.

The use of its application is confirmed by V. Samoshkin [13], who determined satisfactory correlation coefficients (from 0.27 to 0.63) between level of cardio-respiratory system's functional potentials and students' physical fitness. The author confirmed existence of direct connection between health condition and physical fitness. From point of view of V. Samoshkin [13], it is also important to consider student's motor regiment.

The system of tests and normative shall strictly correspond to targets, tasks and content of physical education. It shall meet age and gender peculiarities of people, health condition. The system shall not require extreme physical loads. A.T. Litvin offer base (in assessment of physical education effectiveness) on criteria, grouped in six blocks: body constitution, condition of most important functional systems, weekly volume of energy consumption due to motor functioning, weekly scope and correlation of different kinds of motor functioning, indicators of strength, coordination and flexibility; morbidity [12].

Alongside with it, variety of opinions in respect to criteria of physical education effectiveness requires to conduct additional researches and analyze existing publications.

Purpose, tasks of the work, material and methods

The purpose of the research is to work out criteria, permitting assessment of physical education in higher educational establishments.

We used the following methods of the research in compliance with tasks and purpose of our work: theoretical analysis and generalization of scientific-research literature and documents, method of experts' assessments. Analysis of official documents was fulfilled by methodic, which is sufficiently completely described in a special literature [6, 7]. In the research we used the following kinds of experts' assessments: method of preference and method of direct assessment [7].

As experts, 26 professors and associate Professors of higher educational establishments of different profile were invited (13 doctors of science and 13 candidates of science).

Results

Analysis of physical education and sports in Ukrainian higher educational establishments showed that just higher school is the last stage of future specialists' training for independent activity. It imposes great responsibility for students' health and physical fitness on pedagogic staff [8].

In official documents, regulating students' physical education there is no clear formulation of its tasks and aims. That is why for determination of priorities in physical education in HEEs experts were given the task: "Rank the tasks to be solved by physical education in HEE by their importance". Results of expertise by method of preference (after reducing quantity of experts by Delfa's method) are given in table 1.

Table 1. Results of experts' questioning about importance of tasks to be solved by HEE physical education (W = 0,82, n = 21)

Object of expertise: ranking of tasks to be solved by HEE physical education	Rank
Formation of motivation – value attitude to physical culture, demand in regular practicing of physical exercises and sports	1
Formation of system of knowledge about physical culture and healthy life style	3
Strengthening of health, promoting of correct formation and comprehensive development of organism prophylaxis of diseases, ensuring of high physical condition, workability for all period of studying	2
Acquiring of motor skills' fund, general and professionally-applied physical fitness	4
Preparation for State or departmental tests and normative of physical fitness at level of requirements of educational-qualification characteristics and educational-professional programs for certain specialists	5

One of the most important problems of construction of HEE physical education technology is to form student's interested attitude to discipline, to awaken interest to building healthy body, to form own health in the widest sense [3]. Only if a student understands real possibility of such influence on own organism it becomes possible to effectively solve separate motor tasks, which are the components of every academic training [9].

That is why one of questionnaire's items implied definition of the most acceptable methods of physical education quality control in HEE. Results are given in table 2.

Table 2. Results of experts' questioning about the most acceptable methods of physical education quality control in HEE (W=0,789, n=24)

Object of expertise: the most acceptable method of physical education quality control in HEE.	Rank
Testing of physical fitness	2
Regular monitoring of physical condition indicators, changes of which is individual target of a student	1
Analysis of optional trainings' attendance on senior years of studying (after finishing of compulsory trainings)	3
Monitoring of theoretical knowledge on physical culture and healthy life style	4
Other methods	5

Considering modern students' low motivation for practicing physical exercises we organized experts' assessment of methods of students' motivation for physical culture. The results are given in table 3.

Table 3. Results of experts' questioning about methods of students' motivation for physical culture (W=0,738, n =23)

Object of expertise: methods of students' motivation for physical culture	Rank
Semester physical education test	2
Current physical education testing	3
Regular monitoring of physical condition indicators, changes of which is individual target of a student	1
Every year State testing of physical fitness	4
Other methods	5

Thus, regular monitoring of physical condition indicators (as individual target of a student) is, at the same time, the most acceptable methods of physical education quality control and motivation of students for trainings. Just achievement of individual target is a powerful factor, stimulating further activity. Any activity is regulated and controlled owing to feedback. If results grow, motivation for activity increases. That is why testing of results creates strong positive emotional feeling and gives new impulse for self-perfection [11, 15]. Though, choice of physical condition indicators to be improved in physical education process – is an open question. With it, it is necessary to base on our questioning of students [2]. Physical condition indicators can be divided into 2 groups:

1. Indicators, connected with good appearance (fat percentage, correlation of muscular and fat tissues and so on);
2. Indicators, connected with strengthening of health (functional indicators of cardio-respiratory systems, muscular skeletal apparatus and etc.).

It should also be noted that it is important to correctly choose physical condition indicators. Positive changes of these indicators will facilitate solution the main task in HEEs: formation of students' motivation-value attitude to physical culture, demand in regular practicing of physical exercises and sports.

Discussion

Results of our researches confirmed the data of other authors about importance of physical education quality control and correct choice of physical condition indicators of students [16–20, 23–26].

When composing academic plan on physical education it is necessary to consider that physical fitness and health can not be preserved for future usage. Regular motor functioning is important target for students. Students shall feel advantages of healthy life style already in the process of studying. After graduation advantages, acquired with physical exercises, will quickly disappear. Thus, academic plan shall form students' responsibility for their way of life [21, 22].

Unfortunately, nowadays there appears danger tendency to refuse compulsory physical education lessons in HEEs for saving money, required for maintenance of sport facilities. These actions are provoked by the following:

- Order of Ministry of education and science, dt. January 26, 2015, № 47 “On formation of curriculums for 2015/2016 academic year”;
- Letter of MES of Ukraine, dt. 13.03.2015 № 1 / 9–126.

In this letter it is noted: “Physical culture trainings in sport circles can be organized both as optional (i.e. they are not included in curriculums and have no final control)”. It contradicts to Cl.26, it. 4 and it. 17 of Law of Ukraine “On higher education”. In these documents it is noted: “Administrators of higher educational establishments are obliged to create favorable conditions for proper motor functioning of students”.

That is why analysis of optional trainings' attendance we consider to be very important indicator of physical education quality at HEEs in spite of the fact that it takes only third position be results of expertise. Its correspondence to the task, which id the most important in HEEs: formation of motivation-value attitude to physical culture, demand in regular sports' and physical exercises' practicing, attracts attention. Optional trainings can be paid but in reasonable limits. A share of the earned money can be directed for financial incentives of instructors.

Conclusions

The most acceptable method of physical education quality control in HEEs is regular monitoring of students' physical condition indicators. Indicators of trainings' quality shall be individual target of every student. Alongside with it, analysis of optional trainings' attendance we consider to be an important indicators of physical education quality at HEE.

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Conflict of interests

The author declares that there is no conflict of interests.

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Information about the author:

Anikieiev D.M.; <http://orcid.org/0000-0001-8931-2067>;
dmytroanikeev@gmail.com; Institute of Penal Service; st.
Manifold, 4, Kyiv, 02121, Ukraine.

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