

# Technology for assessing the educational results of future teachers in physical culture based on a case-task

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## Abstract

**Objective of the study** was to develop a technology for assessing the educational results of future physical education teachers based on a case-task.

**Methods and structure of the study.** The authors describe the logic of building an educational result in the field of methodological training of a future physical education teacher, which is to be assessed using the GPC-3 competence as an example, indicators of its achievement are highlighted.

**Results and conclusions.** An example of building an assessment tool in the form of a case-task for assessing the educational results of future physical education teachers in the field of methodological training is presented. Criteria, indicators and evaluation scale of the evaluation tool are described, which allow to assess the level of achievement of educational results of future physical education teachers and determine their readiness for professional activities.

**Keywords:** *future physical culture teacher, educational result, assessment tool, case-task, assessment criteria and indicators.*

**Introduction.** One of the most problematic issues in the process of modernization of teacher education is the quality of training of future teachers [1, 2]. An analysis of the existing literature on the issues of tools for assessing the quality of training of graduates of physical education indicates that at present there are no unified approaches to assessing the educational results of graduates of pedagogical universities. Within the framework of the main educational programs in the areas of training future teachers of physical culture, various forms of intermediate certification of students are implemented, aimed at assessing the formation of knowledge and skills, however, such results are not an objective indicator of the quality of graduates' training and do not fully reflect their readiness to carry out labor activities in accordance with the requirements of the professional standard of the teacher. Under the educational result in we mean the result of the student mastering the main professional educational program (hereinafter MPEP) or its part

during the period of study at the university, presented as a set of actions that the student can demonstrate when performing professionally-oriented activities at a certain stage of mastering the MPEP, and allowing to quantify the degree of mastering knowledge, skills, competencies and activity experience, in accordance with the requirements of the Federal State Educational Standard of Higher Education and the Professional Standard of a Teacher [3]. Thus, it is relevant to develop a technology for assessing the educational results of future physical education teachers, which makes it possible to objectively assess the level of achievement of the educational result and determine the readiness of graduates for future professional activities.

**Objective of the study** was to substantiate the technology for assessing the educational results of future physical education teachers on the basis of a case task.

**Methods and structure of the study.** Methodological guidelines for the development of technology



for assessing the educational results of future teachers of physical culture is a set of approaches related to the problem of assessing the quality of training of students, such as activity, competence, criteria, level approaches. The activity approach, which is the basis for the design of the Federal State Educational Standard of Higher Education, focuses on the inclusion of students in activities. Relying on the activity approach makes it possible to describe the indicators that characterize the object of evaluation in the form of appropriate descriptors.

The quality of training of students in the process of planning and implementing the educational process is considered as a measure of compliance with the planned and achieved results, which are determined on the basis of the Federal State Educational Standard of HE and the Professional Standard and are recorded in the MPEP. To evaluate the results achieved at all control stages of the educational process (current, intermediate and final certification), specially created evaluation tools are used, the development of which is based on a criteria approach. In the construction of the technology for assessing educational results, a special place is occupied by such a component as "Assessment procedures", associated with a level approach to assessment. This component reflects the processes and procedures for measuring and evaluating at various control points, in particular, at the current, intermediate and final stages of student certification. These levels can be classified as optimal, acceptable, critical and unacceptable levels.

**Results of the study and their discussion.** Let's consider an example of building an assessment tool in the form of a case-task for assessing educational results in the field of methodological training of future physical education teachers. To construct an evaluation tool, we propose to use an invariant form of task representation. The structure of this form is determined by three interrelated parts: organizational and methodological, content and criteria-evaluative, the coordination between which is carried out on the basis of the principle of objectivity of evaluation [4].

The first, organizational and methodological part provides a description of the object of evaluation. The selected educational results and their corresponding indicators of achievement serve as such an object, each of which is a necessary condition for achieving a specific educational result. The second, substantive part of the evaluation tool presentation form includes the actual evaluation task. The third, criteria-evaluative part of the form of presentation of the evaluation tool, is determined by the presence of the evaluation

criterion and the corresponding indicators that reveal the degree of manifestation of the indicator of achieving the educational result [5].

The construction of the educational result in the field of methodological training of the future teacher of physical culture, subject to assessment, was carried out **on the basis of a comparative analysis of the documents of the Federal State Educational Standard of Higher Education (in the direction of preparation 44.03.05 "Pedagogical education", profile "Physical culture and Life safety), Exemplary Basic Educational Program, the core of Higher Professional Education, the Teacher's Professional Standard. As a result, the relevant general professional competencies, indicators of achievement of competencies, labor activities were identified and agreed upon, and the educational result was described and the indicators of achievement of educational result (IER) in the field of methodological training of the future teacher were identified, which is formulated at the level of knowledge and at the level of skills as follows:** knows: effective forms, methods and technologies for organizing joint and individual educational activities of students, including for working with students with special educational needs; is able to: design diagnosable goals (requirements for results) of joint and individual educational activities of students in accordance with the requirements of federal state educational standards; select pedagogically sound content, forms, methods and techniques for organizing joint and individual educational activities of students, including those with special educational needs; develop a methodology for organizing joint and individual educational activities of students, including those with special educational needs, in accordance with the requirements of federal state educational standards; select (develop) a system of educational tasks in accordance with the individual educational needs of students, for the organization of joint (individual) educational activities of students, including those with special educational needs, in accordance with the requirements of federal state educational standards.

Next, a case-task is developed in the form of a professionally oriented situation, modeled into a specific professionally oriented task, the solution of which should be aimed at checking the formation of educational results. In our example, to assess the educational results in the field of methodological training of a future physical education teacher, the situation is formulated as follows:



**Table 1.** Evaluation of the answer to question 2

Question 2. Suggest at least two topics of group student research projects within the framework of the subject “Physical Education” with a meta-subject orientation of the content. Justify your answer. (IER 3)	
Criterion of IER 3: is able to select pedagogically sound content, forms, methods and techniques for organizing joint and individual educational activities of students, including those with special educational needs	
Indicator	Evaluation
Two themes of group student research projects that ensure the organization of joint educational activities are correctly presented. The choice of the theme of the projects is justified.	3
Two themes of group student research projects are correctly presented, which ensure the organization of joint educational activities of students, however, the substantiation of the metasubject orientation of the presented topics for projects is not sufficient and needs to be clarified.	2
The topics of group student research projects require clarification. The rationale for the choice of project topics in terms of their meta-subject content is not given correctly.	1

*Description of the situation.* The teacher of physical culture of the secondary school Nikolay Ivanovich N. every year takes part in the school stage of the competition of student research projects “Eureka” in the section “Physical culture and sports”, as a result of which the winners go to the next city stage. This year, 10 students from a class with different levels of knowledge and skills wanted to take part in the competition, which led the teacher to confusion, since earlier he had to make efforts to motivate students and attract them to participate in the competition, but in the current situation, he will have to choose. The regulation on the competition of the school stage indicates that the number of individual projects in the subject should be no more than 2, and group - one. In addition, the topics of projects should be of a meta-subject nature.

Analyze the situation and provide answers to questions 1-3.

1) Formulate the diagnosable goals of preparing students for participation in the competition and develop a plan for organizing joint educational activities of students in the process of preparing and identifying participants in this competition (IER 2).

2) Suggest at least two topics of group student research projects, within the framework of the subject “Physical Education” having a meta-subject orientation of the content. Justify your answer (IER 3).

3) Develop the content of a group project in your subject, which involves, during its preparation, the organization of joint educational activities of students (IER 4).

The next step in the technology of building an assessment tool in the form of a case task is to formulate criteria, indicators and an assessment scale. In relation to the example under consideration, the evaluation of the case is based on the summation of the points assigned for each question. As evaluation criteria for each question, IER 2, IER 3, IER 4 are used, respectively. The indicators that reveal the degree of achievement of the educational result are: the degree of completeness, the degree of correctness and the degree of validity, if it is provided in the question. An example of criteria and indicators for assessing the achievement of an educational result is presented in Table 1.

The maximum score for the answer to question 2 is 3 points, the minimum score is 1 point. Thus, the maximum score for the case is 9 points. A case is considered completed successfully if the result of its implementation is at least 5 points.

To assess the level of achievement of each educational result in the field of methodological training of the future physical education teacher, the limits of points are determined, presented in Table 2.

Since only indicators 2, 3 and 4 are used in the given version of the case task, then, taking the same professionally oriented situation as a basis, it is possible to formulate questions that are adequate to other indicators and build several more task options.

**Conclusions.** Thus, the presented technology for assessing the educational results of future physical education teachers in the field of methodological

**Table 2.** Levels of achievement of educational results in the field of methodological training of students

Level	Cases
Optimal	8, 9
Permissible	6, 7
Critical	5
Not valid	Less than 5



training, built on the basis of using a case-task, allows you to objectively assess the level of achievement of educational results in the process of students performing various types of methodological activities provided for in a specially selected professionally oriented situation.

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