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**INTERMEDIATE CERTIFICATION OF THE SPECIALTY**  
**«RHYTHMIC GYMNASTICS» STUDENTS**

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***Abstract***

Improving the quality of higher education is a determining condition for ensuring the competitiveness of graduates on the market and is one of the priority goals of research in the field of education. Such a sport as rhythmic gymnastics, covers a large part of the population among girls 3-16 years old, and has great potential for solving problems in the field of sports and recreation. In this connection, it is necessary to have personnel with the appropriate qualifications for an extensively developing and varied modern labor market. The article discusses the application of testing in higher education to assess professional competence of future rhythmic gymnastics coaches. Competency-based approach to learning provides a diagnostic package for interim certification of students of specialization “gymnastics” for assessing the level of knowledge in accordance with the requirements of the professional standard “Coach”. Based on the analyses of test blocks of various kinds, the existing gaps in the students' theoretical preparedness are revealed. The quality of the formed competencies depends on the ability to plan the content of classes. It depends on the basic principles of the theory and methodology of physical culture, the correct dosage of the load, physical and psychological characteristics of students specializing in “rhythmic gymnastics”. The advantage of the proposed method demonstrates the need for new, integrated test systems.

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## 1. Introduction

In the modern educational process priority is the use of the latest technologies. This will improve the training process of students who are engaged in rhythmic gymnastics (Kvashnina, 2017).

For the successful completion of exercises in rhythmic gymnastics, it is necessary to develop speed, strength and coordination qualities, as well as endurance and flexibility (Kivikhariu, 2019; Panova et al., 2015).

However, there are technologies that have not exhausted their reserves, in particular diagnostic technologies, which include testing (Nazarenko et al., 2017; Nazarenko et al., 2015).

Today, the testing method, which allows monitoring the quality of education, is an important part of the pedagogical process. As many experts note, tests have the greatest objectivity of all the known methods of control. It also provides the ability to cover a large amount of educational material, as well as to judge the development of the material when it is repeated (Penichet-Tomas & Pueo, 2017; Sullivan et al., 2016; Trigub, 2017).

On the other hand, the use of tests in the learning process is an aid for students for self-training and self-assessment. The test system used in assessing the professional competence of students should make this process mundane, stimulating their further self-improvement (Kasatkina et al., 2017; Mingalisheva, 2017).

## 2. Problem Statement

Changes in educational standards and requirements for graduates in 2019 updated the problem of monitoring academic achievements. Thus, making testing the best way to check knowledge and skills. Despite this, at the present time there is no system that allows comprehensively solving the problems of certification of trainers. In this regard, in order to increase competitiveness, there is an urgent need to develop and implement a system for assessing the competence of sports teachers that meets the requirements of the “Coach” professional standard (Ministry of Labour of Russia, 2016; Federation international gymnastics, 2018). This system needs to be aimed at examining their knowledge, skills and experience and meet modern requirements of the qualifications of rhythmic gymnastics specialists (Medvedeva et al., 2018; Medvedeva, Davidova et al., 2019; Medvedeva, Smirnova et al., 2019; Jeffress & Brown, 2017).

## 3. Research Questions

1. To develop with regard to professional standard “Coach” test exercises, which allow to objectively assess students, to increase qualimetric accuracy of their assessment, to control study material and to track the dynamics of emerging competencies.
2. To check experimentally the efficiency of the developed technique for intermediate certification of students of the specialization “rhythmic gymnastics” in higher education programs in the field of physical culture and sports.

#### **4. Purpose of the Study**

To justify the possibility of diagnosing theoretical knowledge of students of the specialization “rhythmic gymnastics” according to higher education programs in the field of physical education and sports, taking into account the requirements of the professional standard “Coach”.

#### **5. Research Methods**

To solve the research problems, a set of methods was used:

- theoretical analysis and generalization of literature and policy documents;
- testing method;
- pedagogical experiment.

The research involved 13 female students of high qualification of the fourth year of study (Masters of Sports of Russia, age:  $21.50 \pm 1.17$  years), Methodological support for six current checks was developed in the form of test tasks containing 175 questions. All tests were grouped into blocks by professional competencies. Evaluation of the effectiveness of the application of the tests was carried out on graduate students of the 2019 undergraduate course at The Lesgaft National State University of Physical Education, Sport and Health.

All obtained data (100 indicators) were subjected to mathematical and statistical processing using the STATGRAPHICS plus program. The analysis of the obtained indicators made it possible to establish the level of knowledge necessary for the future rhythmic gymnastics’ coaches in accordance with the professional standard “Coach”.

#### **6. Findings**

Test assignments in the discipline “Technology of sports training in a chosen sport (rhythmic gymnastics)” for assessing the knowledge of undergraduate students studying in the field of “Physical Culture” (profile “Sports training in a chosen sport”) were developed in accordance with the approved order of the Ministry of Labor of Russia. As well as the professional competencies necessary for its implementation (Schennikova & Evseev, 2016) and the knowledge underlying its formation (Professional standard “Coach”, 2019).

During the 4th year of study (full-time), students were offered 6 blocks of tests to comprehensively assess the knowledge necessary for the professional rhythmic gymnastics’ coaches in accordance with the three professional competencies formed in the discipline (table 1).

In accordance with the competency “Planning, accounting and analysis of the results of sports training for those involved in the stage of improving sportsmanship”, a test was proposed. It contained:

- 30 questions aimed at testing knowledge about the system of indicators for monitoring and evaluating the effectiveness of the training process and competitive activity;
- 25 questions assessing the knowledge of planning training sessions in “Rhythmic Gymnastics”;

- 60 questions to test the knowledge of the Federal standard for sports training in “Rhythmic Gymnastics”. Of which 30 questions allowed to assess the knowledge of the sections regulating the planning of the training process. And 30 questions allowed to assess the knowledge of the sections regulating the duration of the stages of sports training, age and the number of people in groups.

According to the competency “Ability to implement an individual approach in the process of sports training in accordance with the standard”, 30 questions were applied to assess knowledge of sports training technologies.

To test knowledge on the competency “Ability to manage the competitive activity of athletes” 30 questions were developed. The answers to which revealed the requirements for the assignment of sports categories and titles in accordance with the All-Russian sports classification.

Thus, the designed six test blocks, containing 175 questions, made it possible to comprehensively assess the theoretical readiness to perform professional functions in the field of sports training.

**Table 01.** Orientation and results of competency testing, formed on the discipline “Technology of sports training in the chosen sport (rhythmic gymnastics)”

Professional competencies	Knowledge in accordance with the professional standard "coach"	Number of questions	M±m	V (%)	Competency level (%)	
Planning, accounting and analysis of the results of sports training for those involved in the stage of improving sportsmanship	The system of indicators for monitoring and evaluating the effectiveness of the training process and the competitive activity of those involved; Content and techniques of integrated control and accounting in sports training	30	19,58±1,43	24,29	67	
	Types of planning training sessions	25	11,30±0,893	26,07	45	
	Federal Standard for Sports Training in Rhythmic Gymnastics	The content of the planning of training sessions (training equipment, standards for the maximum amount of training, etc.)	30		20,42	68
		The duration of the stages of sports training, minimum age for admission to the stages of sports training and the number of persons undergoing sports training in the groups	30	25,25±1,27	16,64	73
	Total sum		115	71,50±3,55	16,49	62

Ability to implement an individual approach in the process of sports training in accordance with the standard	Training technology in rhythmic gymnastics; Technology for professional sports development in rhythmic gymnastics	30	6,20±1,01	20,74	54
Ability to manage the competitive activity of athletes	The requirements for the assignment of sports categories and titles	30	23,08 ±2,43	34,97	77

Verification of the effectiveness of the use of tests in the implementation of the main professional educational training program was carried out in the 7th and 8th semesters of the 2018-2019 academic year for undergraduate students.

The pedagogical experiment, in which 13 students took part, suggested the organization of current controls as they master the curriculum of the discipline (tables 1 and 2). Students were allowed to use supporting material, but they were given only 45 minutes to complete the test task within each of the six current controls. The level of competence of graduates could be judged if there were 70% of correct answers from the total number of proposed questions.

A comparative analysis of the data obtained testified (table 2) that of the three competencies formed in the discipline “Sports training technologies in the chosen sport (rhythmic gymnastics)”, the greatest knowledge formation was recorded in the professional competency “Ability to manage the competitive activity of athletes”.

**Table 02.** The level of competence of students in the discipline “Technology of sports training in the chosen sport” (n = 13)

Number of correct answers, %	Knowledge level	1	2	3
		Number of students (%)		
< 50%	Low	7	14	21
50-70%	Average	72	86	0
> 70%	Above average and high	21	0	79

Note:  
 1 - Planning, accounting and analysis of the results of sports training for those involved in the stage of improving sportsmanship;  
 2 - Ability to implement an individual approach in the process of sports training in accordance with the standard;  
 3 - Ability to manage the competitive activity of athletes

The number of correct answers in the current control of 79% of students was 77% of the maximum possible (above average and high level), and the average statistic for this competency corresponded to 23.08 ± 2.43 answers (out of 30 proposed questions).

This could be explained by the fact that all subjects were familiar with the requirements for the assignment of sports categories, and were also interested in constantly replenishing the ranks when making changes to the all-Russian sports classification by sport.

In the testing process in the “Planning” section, it was found that 21% of the subjects completed the test tasks, demonstrating above average level of knowledge (> 70% of correct answers). The greatest difficulties were caused by control No. 1, which checked the knowledge of documentation in rhythmic gymnastics. A low level of knowledge was recorded: only 45% of correct answers to questions of the total number in the test task.

In the professional competence “The ability to implement an individual approach in the process of sports training in accordance with the standard” the majority of students (86%) had an average level of knowledge (52%). At the same time, there were no students demonstrating high-level knowledge due to the small experience in coaching.

Thus, it can be argued that the methodology for testing professional competencies among graduate students allowed us to identify the most difficult sections of theoretical training for mastering, and also formed the direction of correction of the content of the educational program.

## 7. Conclusion

The use of test tasks in the intermediate certification of students in the process of mastering the disciplines “Physical Culture and Sport” allows us to objectively and timely test knowledge, to improve the accuracy of assessing the quality of knowledge, to control the studied material in full and to monitor the dynamics of generated competencies.

An experimental verification of the designed tests made it possible to establish that the proposed approach provides differentiation of students, both in terms of knowledge and the level of formation of each professional competency. This is an essential condition for improving the quality of the process of physical education.

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