ASSESSMENT OF PROFESSIONAL COMPETENCE OF FUTURE TEACHERS OF LIFE SAFETY IN THE INTERIM ASSESSMENT USING WORLDSKILLS RUSSIA METHODS

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Abstract

The research problem. At the moment, it is more relevant to include in the educational process a system of objective independent assessment of practical skills required in future professional activities. The use of WorldSkills methods at the state assessment in 2017 showed the necessity to use these methods for assessment the level of competence of future teachers of Life Safety. In our opinion, the introduction of WorldSkills standards and methods during the interim assessment will contribute to more effective preparation of students for the state final examination, and consequently, to success in professional activities. The purpose. Assessment of professional competence of future teachers of Life Safety during the interim assessment using methods of WorldSkills Russia. The methods. The study involved graduate students of the faculty of Physical Culture and Sports, «Vyatka State University». During the research, theoretical and empirical methods were used. Theoretical methods included the analysis of scientific, educational, methodological and regulatory documentation in order to study current approaches to the assessment of the results of interim assessment and taking into account the basic requirements of WorldSkills Russia. The methods of observation, questioning, pedagogical experiment, comparison were used as empirical methods. For the first time in 2018, the interim assessment of future teachers of Life Safety was conducted in two special subjects on the basis of the specialized demonstration class of "Vyatka State University". To determine the formation of professional competence, the teachers of the department have developed a set of evaluation materials, which included a set of tasks, criteria and means of assessment, lists of infrastructure, routes, equipment of the working area in accordance with the standards of WorldSkills Russia. The students presented their work in the form of a prepared fragment of a lesson or extracurricular activities, an element of organizational activities as a teacher of Life Safety or a deputy director of safety in an educational institution. The first- and second-year-students were volunteers. According to the regulations, one hour was allocated for the preparation of tasks. Then the student demonstrated theoretical knowledge and practical skills in accordance with the examination task. The comparative analysis of the state final assessments in 2017 and 2018 according to WorldSkills standards showed an increase in the level of professional competence of graduates in 2018 compared to 2017. Conclusion. Assessment of professional competence of future teachers of Life Safety during the interim assessment using methods of WorldSkills Russia allows to determine the level of student professional competence at this stage of training and prepare students for the state assessment more qualitatively according to WorldSkills standards.

Keywords: WorldSkills (WS) methods, professional competence, interim assessment, teachers of Life Safety.

1 INTRODUCTION

Attestation of students with the traditional system of competency assessment, even in the form of a comprehensive exam, allows to assess mainly the level of theoretical training. It does not give an objective idea of the graduate’s readiness for professional activities [2]. However, the requirements of the federal state and professional standards in the field of education actualize the problem of assessing the learning outcomes of future specialists from the standpoint of correspondence of qualification and assessment of the formation of competences [6]. Professional competences of future teachers assume the formation of readiness for implementation of professional activities. One of the tasks of the educational institution is to provide procedures, mechanisms for measuring and assessing the quality of training of the future teacher from precisely these viewpoints of training. From this perspective, it is becoming logical to use methods and standards of WorldSkills in the assessment of students, which are a proven and objective mechanism for assessing competence and professionalism. This will contribute to improving the competitiveness and successful employment of future specialists [1, 4, 6, 7].
However, these innovations relate mainly to assessment in institutions of secondary vocational education and only of those professions for which the WSR competences are developed. Data on the application of these methods during assessment in universities are rare [3]. We believe that all the requirements of the WSR can be successfully applied to the competences of the teacher, including during the final assessment of graduates of the educational program specialization "Teacher Education".

Currently, the assessment of graduates of the educational program specialization "Teacher Education" in the form of a demonstration exam on the standards of WorldSkills Russia is not possible due to the lack of requirements for this professional competence, certified experts, requirements for equipment of the working area. Therefore, assessment of future teachers of Life Safety (bachelor degree level) was carried out using the basic principles and methods of WSR, and not in the form of the demonstration exam.

Using the principles and methods of WorldSkills in conducting the state assessment in 2017 showed the need to use them to assess the level of competence of future teachers of Life Safety [5]. In our opinion, the introduction of WorldSkills standards and methods during the interim assessment will contribute to more effective preparation of students for the state final exam and, consequently, success in their professional activities.

The purpose. Assessment of the level of professional competence of future teachers of Life Safety during the interim assessment using methods of WorldSkills Russia.

2 METHODOLOGY

The study involved students-future teachers of Life Safety, who study at the Faculty of Physical Culture and Sports of "Vyatka State University" (Kirov, the Russian Federation) in 2017-2018. In the course of the study, theoretical and empirical methods were used. Theoretical methods included the analysis of scientific, educational, methodological and regulatory documentation in order to study current approaches to the assessment of the results of interim assessment and taking into account the basic requirements of WorldSkills Russia. The methods of observation, questioning, pedagogical experiment, comparison were used as empirical methods.

3 RESULTS

For the first time in 2018, the interim assessment of future teachers of Life Safety was conducted in two special subjects on the basis of the specialized demonstration class of Vyatka State University. To determine the formation of professional competence, teachers of the department have developed a set of evaluation materials. It included a set of tasks, criteria and means of assessment, lists of infrastructure, routes, and equipment of the working area in accordance with the standards of WorldSkills Russia. Tasks were set up 6 months before the interim assessment. We have developed 25 different assignments for each special subject. They were presented in the exam tickets. The selection of tasks was carried out with the following requirements:

1. time to do the task should be no more than one hour;
2. the task allows to evaluate ICT competence, the ability to use information and communication technologies for access to information, for its search, organization, processing, evaluation, as well as for production and transmission;
3. the task involves the knowledge and use of equipment of the demonstration class of Life Safety, as well as training to work with it;
4. the task allows to demonstrate the communicative competence of the student;
5. performance of the task is impossible without knowledge of theoretical aspects in the field of Life Safety, pedagogy, teaching methods;
6. development of a fragment of an event using a text editor and its evaluation by the expert group; performance of another part of the task must be demonstrated to the experts in the form of working with volunteers;
7. drawing up tasks taking into account the school curriculum on Life Safety;
8. providing equal opportunities for students to demonstrate their professional competence in the framework of the subject.
All tasks were divided into 3 modules. Module 1 – “Class Activities”; module 2 – “Overtime activities”; Module 3 – “Organizational activities on safety of the educational institution”. Module 1 accounted for 60% of tasks, module 2 - for 20% and module 3 - for 20% of tasks (Fig. 1).

In contrast to the demonstration exam of the championship, in our case the student performed the task of only one module. This was determined by the choice of the examination ticket. According to the regulations and methods of WorldSkills Russia, each task must consist of successively solved tasks. Each task consisted of 10 subtasks. Their implementation made it possible to assess the degree of correspondence of the student’s actions to the job responsibilities.

In accordance with the regulations of the WSR, we have developed a set of materials for interim assessment (exam), which includes an additional set of tasks, criteria and means of assessment, lists of infrastructure, routes, equipment of the working area in accordance with the basic requirements used during the demonstration exam and championships by WorldSkills Russia standards.

Due to the lack of certified independent experts and the standard of competence “Teacher of Life Safety”, the role of experts was carried out by the staff of the department, carrying out the teaching of subject to students of educational program specialization "Life Safety". The role of the Chief Expert was performed by the head of the department. The secretary of the commission also was at the exam. He filled in a standard protocol for each participant of the interim assessment (exam).

For the equipment of the examination site we used the equipment of the teacher's place of work. The demonstration training equipment that is necessary for training teachers of Life Safety was also used. On the site there were three zones: the work zone, the expert zone and the volunteer zone. Each desk of the working area was equipped with a laptop, which contained the electronic version the steering document and high school textbooks on Life Safety, regulatory documents and security acts (Federal laws, orders), standard operating systems for creating documents and presentations.

The students presented their work in the form of a prepared fragment of a lesson or extracurricular activities, an element of organizational activities as a teacher of Life Safety or a deputy director of safety in an educational institution. Volunteers were students of the first- and second-year-students. They acted as pupils when students showed fragments of tasks. Younger students are to pass the exam in the same format in future years. According to the regulations, one hour was allocated for the preparation of tasks. Then the student demonstrated theoretical knowledge and practical skills in accordance with the examination task.

When assessing the results of the exam subjective criteria for assessing the performance of subtasks in the task were used. Each subtask was evaluated on a 10-point scale used in the championships. In this case, 10 points corresponded to the estimated judgment “a masterpiece, an extremely rare result”, 9 points - “excellent”, and 1 point was considered as “there is no knowledge and skills ”. Each expert (member of the commission) assessed the level of task performance, putting points in the protocol for each subtask. Then the task was evaluated as a whole, based on the average value of the score. Subsequently, this assessment was transferred to the traditional 4-point scale. The final grade was written in the exam record and the student's record book. The following scale was used when...
transferring points: 0-2.5 points - “unsatisfactory”; 2.51-5 - “satisfactory”; 5.01 - 7.5 - “good”; 7.51 or more - “excellent”.

Along with the assessment of tasks, each expert also filled in a protocol for assessing the level of development of the graduate’s competences. The result of the exam was announced to students on the day it was held. There were no appeals on the results of the examination.

Students during the interim assessment with the use of WSR methods got mainly "excellent" marks and a small number of students got "satisfactory" marks (Fig. 2). The average mark of the examination in the subject was 4.67; the quality indicator - 83.3%.

After the interim exam, questionnaire survey of the students (who took the exam), experts and volunteers was held. It was important for us to know their opinion on the interim assessment with the use of WSR methods (Table 1). The opinion of students and experts on many indicators coincided. This is due to the fact that the experts and the students, participated in interim assessment with the use of WSR methods for the first time. The volunteers did not fully understand the essence of the exam in this form. Therefore, the meanings of their answers differ from those of other groups.

We compared the results of the state final assessments in 2017 and 2018 to study the effect of interim assessment in this form on the quality of preparing students for the state final assessment. In 2017, the students passed only the state final certification according to WSR standards. In 2018, the
students passed the last interim assessment in special subjects and the state final assessment according to WSR standards.

Academic progress of future teachers of Life Safety increased in 2018 compared with 2017 (Fig. 3). For example, in 2018, in contrast to 2017, no “satisfactory” grade was given. The number of “good” grades also increased by 6.3%, and the number of “excellent” grades increased by 7%. The average score at the final exam in 2018 was 4.67, which is 0.2 points more than in 2017. The quality indicator in 2018 was 13% higher than in 2017.

Figure 3. Results of the final assessment (on the left - 2017, on the right - 2018).

The comparative analysis of state final assessment conducted in 2017 and 2018 according to WorldSkills standards showed an increase in the level of professional competence of graduates in 2018 compared to 2017. Therefore, the results of the experiment in conducting the interim assessment of future teachers of Life Safety using WorldSkills Russia methods can be considered successful.

4 CONCLUSIONS

Assessment of professional competence of future teachers of Life Safety during the interim assessment using methods of WorldSkills Russia allows to determine the level of students professional competence at this stage of training and prepare students for the state assessment more qualitatively according to WorldSkills standards.

REFERENCES