

V International Forum on Teacher Education

Demonstration Examination in the System of Secondary Vocational Education as a New Format of Competence Assessment of Future Elementary School Teachers

Elina N. Yakovleva*(a), Galina V. Voiteleva (b), Irina Y. Krasilova (c)

(a), (b), (c) State University of Humanities and Technology, Orekhovo-Zuyevo, Russia

Abstract

One of relevant problems of vocational education modernization is quality improvement of training. In this regard, the introduction of new competence-focused formats of educational results assessment, which will be able to realize the nature of independent assessment and meet the requirements of educational and professional standards, acquires special relevance. A new format of assessment of educational results meeting all these requirements is the demonstration examination based on standards of assessment of general and professional competences within the international competitions WorldSkills. The article focuses on the development of the system of independent assessment of future primary school teachers' qualification with the help of the demonstration examination held with the use of control and measuring materials of the National WorldSkills Russia Championships on Competence R21 Primary School Teaching. Moscow Region as an associated partner of the WorldSkills Russia movement suggested this competence and the State University of Humanities and Technology (the city of Orekhovo-Zuyevo, Moscow region) developed the Technical Description of the competence and the strategy of implementing the demonstration examination in this competence in the system of secondary vocational education. The growing number of educational institutions in different parts of the country using now the demonstration examination as a new format of educational results assessment proves that the demonstration examination has got mass support of regions in the Russian Federation.

Keywords: teacher training, secondary vocational education, competences, independent assessment, demonstration examination, WorldSkills Russia.

© 2019 Elina N. Yakovleva, Galina V. Voiteleva, Irina Y. Krasilova

This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published by Kazan Federal University and peer-reviewed under responsibility of IFTE-2019 (V International Forum on Teacher Education)

* Corresponding author. E-mail address: mgopi@list.ru

Introduction

One of the problems of vocational education modernization is quality improvement of training. Not only the state as the main customer, which regulates request for quality by means of standards, accreditation and licensing procedures, is interested in reforming vocational education, but also other stakeholders: employers, consumers of educational services, and the whole society in general. In this regard, the introduction of new competence-focused formats of educational results assessment, which will be able to realize the nature of independent assessment and meet the requirements of educational and professional standards, acquires special relevance.

The national system of qualifications (further – NSQ), which is being actively formed now, makes its contribution to providing standardization of procedures and quality of training experts. NSQ is responsible for the development of professional standards, procedures of professional and public accreditation of educational programs, independent assessment of qualifications.

The process of searching for ways of interfacing the existing systems of secondary vocational education and NSQ is acquiring a special relevance. The purpose of this process is the introduction of new competence-focused formats of educational results assessment, which will be fully able to realize the nature of independent assessment and will correspond to requirements of educational and professional standards.

It has been very problematic until recently to carry out independent assessment of graduates from institutions of secondary vocational education at the State Final Certification (further – SFC) in traditional formats. The control and measuring materials, usually developed by educational institutions, did not meet adequately the purpose of the competence-focused assessment. Within the procedure of public presentation of the Final Qualification Work stated as a certification test on a number of the main professional educational programs (further – MPEP) of secondary vocational education, including pedagogical specialties, it is difficult to estimate the development of professional competences objectively.

A large number of graduates from educational institutions of secondary vocational education were not ready to independent assessment of competence-focused educational results. Teachers, as a rule, have no experience of participation in assessment of the competences and qualifications demanded by the real sector of economy. For the purpose of the solution of these problems, new formats of assessment of vocational education quality, combining internal audit of the educational institution and external independent assessment, appear and need approval (Ashikhmina, Ashikhmin, & Fridman, 2018).

The demonstration examination on standards of WorldSkills Russia (further – WSR) has become one of those demanded formats. The technique of carrying out this examination accurately "establishes the forms, order and conditions of its organization, which are obligatory for observance as the basic principles of objective assessment of the results of training personnel" (Order of the Union WorldSkills Russia, 2019).

The pilot project of WorldSkills Russia for introduction of the demonstration examination started in 2017 (Order of the Union WorldSkills Russia, 2016). It marked the beginning of the process of mass implementation of the best world practices of training professional personnel, which have been perfected by WSR for decades, in the domestic system of secondary vocational education.

The list of assignments of the Russian President to the Government of the Russian Federation, executive authorities of constituent entities of the Russian Federation following the results of the meeting with members of the national team of Russia on professional skills became the legal basis of the experiment (List of assignments, 2016). The introduction of the demonstration examination based on

WorldSkills Russia standards as a form of the State Final Certification was among the main assignments.

The demonstration examination was suggested as a standardized procedure of assessing "the level of knowledge, abilities, skills allowing to do professional activities in a certain sphere and (or) to do work in concrete professions or specialties according to WorldSkills Russia standards" (Order of the Union WorldSkills Russia, 2019).

26 constituent entities of the Russian Federation announced about their participation in the large-scale experiment. Originally, in 2017, the demonstration examination was planned to involve not less than two and a half thousand graduates, however the number of participants was several times more – 13907 people on 73 competences. In 2018 the number of constituent entities doubled – up to 59. Respectively, the number of participants also increased – 27,710.

It was supposed that regions (constituent entities) would introduce a new form of certification of graduates for the specialties, which were included in the list of TOP-50 (the list of the most demanded and perspective professions). Pedagogical specialties were not included in that list. Nevertheless, among the specialties demanded by regions there were the pedagogical competences of WorldSkills Russia (Yakovleva, Voiteleva, & Krasilova, 2018).

Materials and methods of research

In this regard, the experience of development and participation in approbation of the demonstration examination in Competence R21 *Primary School Teaching* deserves attention. The number of regions of the Russian Federation supporting the Competence has been constantly growing: from 53 in 2016 to 72 in 2018 (Table 1).

Table 1

Year	Number of regions of the Russian Federation supporting Competence R21	Number of participants of regional championships
2016	53	346
2017	68	384
2018	72	448

Organization technologies of the competitive movement WorldSkills International targeted at the achievement of high standards of vocational training and education turned out to be demanded in the domestic system of pedagogical education. In 2018 the new Russian block of competences *Education* was formed.

Now there are three lines of WSR Championships where Competence R21 *Primary School Teaching* exists:

- National WorldSkills Russia Championship *Young Professionals*,
- Interuniversity Championship based on standards of WorldSkills,
- WorldSkills Russia Juniors Championship.

Some regions (the city of Moscow, Moscow, Oryol and Kemerovo regions) have planned

competitions on the Competence within the new championship range "Skills of the Wise" for professionals at the age of over 50.

The demand on the Competence is caused in many ways by the relevant social order of our society the main requirements of which are obvious:

- compliance of the system of teacher training with the requirements of the general education which is dynamically changing in the context of federal standards;
- strengthening of the orientation at practice in teacher training;
- creation of conditions for realization of the activity-focused professional approach in educational institutions.

First of all the Competence is demanded by teacher training colleges which remain in the system of secondary vocational education of the Russian Federation, which carries out training the personnel demanded not only in big cities but also in towns and rural areas. The regions giving preference to the system of continuous pedagogical education "college - higher educational institution", within which highly qualified competent specialists are being prepared, have the most significant achievements in the development of the competitive movement on Competence R21 *Primary School Teaching*.

In this regard, the experience of the Republic of Tatarstan, the city of Moscow, Moscow, Tyumen, Tambov, Sverdlovsk regions, the Kabardino-Balkaria Republic, the Krasnoyarsk Krai is very interesting. In these regions the conditions for getting higher education on-the-job are created for the teachers having secondary vocational education according to the Professional Standard.

Secondary vocational education, including pedagogical that had become regional, was in great need of uniform tools allowing to estimate objectively the quality of graduates' training, the content and quality of educational programs, material and technical resources, the skill level of teachers and also the direction of activity according to which it was possible to define "growth point" and further development, based on the best world and domestic practices. Such tools were developed and approved within the movement WorldSkills Russia.

It became possible thanks to the fact that new competences are regularly added to the list of competences of the Union WorldSkills Russia. Regions, associated partners of the movement, initiate this process. Competence R21 was suggested by Moscow region. The project on its development and promotion began in 2015. The State University of Humanities and Technology (Orehovo-Zuyevo) acted as the main performer of this project.

This educational institution has the status of the National Center of Competence (NCC) R21 *Primary School Teaching* (<https://worldskills.ru/nashi-proektyi/sczk/>) under the leadership of the certified expert, Ph.D. in Pedagogy, associate professor G. V. Voiteleva. More than that, the State University of Humanities and Technology (Gosudarstvenny Gumanitarno-Tehnologicheskyy Universitet – GGTU) is a platform of best practices included officially in the register of the Academy WorldSkills Russia (<https://worldskills.ru/nashi-proektyi/akademiya-worldskills/5000-masterov/5000-masterov-2018.html/>). Since 2016, more than 300 experts from 57 regions of the Russian Federation have undergone professional development here. They made the basis of the Competence expert community. Now there are three categories of experts in the community: certified experts, experts of the championship and experts of the demonstration examination.

25 certified experts from 21 regions of the RF (according to the data of 2018) form the core group of experts in the community of Competence R21 *Primary School Teaching*. Under the leadership of the Competence Manager E. N. Yakovleva (till 2017 she had been a national expert) these experts carry out

expert assessment and updating of documentation for the national, selection and regional championships developed by the working group of the project.

The project was implemented by stages. At the first stage (2015) a set of necessary documentation was developed. Before that the members of the project working group including teachers of GGTU had conducted a research of foreign and Russian experience of independent expert assessment of the level of professional competences that specialists in different areas had, including the sphere of education (Yakovleva & Krasilova, 2015).

The main objective of the project second stage (2016) was the presentation of Competence R21 *Primary School Teaching* to the professional pedagogical community. The Competence was presented in the demonstration format within the Finals of the 4th National Championship *Young Professionals* (Worldskills Russia) with its subsequent inclusion in the list of the main competences. During implementation of the project various empirical methods of research were used, including expert poll and questioning of teachers and students participating in competitions.

The Technical Description (TD) remains the main component of the Competence documentation set. It includes the following sections: Specification of the WorldSkills standard (WSSS); Estimation strategy and technical features of assessment; Scheme of assessment; Competitive task; Management of competence and communication; Requirements of labor protection and safety measures; Materials and equipment; Special rules of the age group of 14-16. TD is adjusted annually taking into account new experience of participation of the Competence in the competitive movement WorldSkills Russia. It is a permanent process, and tasks for the technical description improvement were set both at the second, and at the subsequent stages of the project.

The Technical Description (TD) of the Competence was developed for the line of WSR championships taking into account:

- the professional standard of the teacher as an instrument of realization of education strategy in the changing world, an instrument of improvement of education quality and its reaching the international level;
- the system and activity approach of the Federal State Educational Standard (FSES) of the primary general education targeted at the use of technologies of problem teaching and achievement of subject, metasubject and personal results.
- the competence-focused approach of the Federal State Educational Standard of Secondary Vocational Education (FSES SVE) on specialty 44.02.02 *Teaching in Primary School* (Order of the Ministry of Education, 2014).

Modules of a competitive task completely correspond to the types of professional activities for which primary school teachers are trained at teacher training colleges (Table 2).

Table 2

Types of professional activity according to FSES SVE on specialty 44.02.02 <i>Teaching in Primary School</i>	Modules of the Competitive task of WSR championships
Teaching according to programs of the primary general education	Preparation and giving a lesson fragment (the stage of discovery of new knowledge) in primary school on one of the school subjects
Organization of extracurricular	Development and holding an extra-curriculum

activities and communication of junior school students	event using interactive equipment
Class leadership and supervision	Preparation and carrying out an interactive training (business game, interactive game, etc.) for parents
Methodical support of educational process	Development of an educational presentation for methodical support of educational process

The competitive task is annually updated by not less than 25%. Within the last two years some new modules reflecting the latest trends in teaching junior school students have appeared there:

- Development and carrying out an extra-curriculum event with robotics elements;
- Preparation and placement of material for the teacher's personal website;
- Preparation and holding of a virtual excursion.

Invariable is only one module of the competitive task of the general professional block *Preparation and giving a lesson fragment (the stage of discovery of new knowledge) in primary school on one of the school subjects*. In this module the main focus is placed on assessment of activity nature of a lesson fragment where the primary school student not only listens and remembers what the teacher tells to him but together with the teacher gets and masters something new. In this regard, the following criteria for evaluation of a lesson fragment get a special relevance: "the teacher motivates students to be active learners", "the teacher involves students in the process of stating aims and tasks for educational activity", "the teacher involves pupils in the organization of a lesson (through determination of the sequence of activities at the lesson", etc.

The criteria base for assessment of fulfilment of a competitive task was experimentally tried out and is annually improved. In 2018 subjective judgment in the Competence was substituted by referees' judgement based on accurate and consecutive application of the scale 0-3 where 0 means that the fulfilment of the task by a championship participant does not conform to the industry standard; 1 - conforms to the industry standard; 2 - conforms to the industry standard and in some respects surpasses it; 3 - surpasses the industry standard and is estimated as excellent.

At the third stage (2017-2018) the project results were implemented in mass practice as a result of inclusion of the Competence in the experiment of the Union of WorldSkills Russia on the demonstration examination for graduates of colleges.

In 2018 on the competitive task module mentioned above a training course was developed which can be interesting to teachers and students of institutions of secondary vocational education of the pedagogical profile, which are preparing for competitions of professional skills and demonstration examinations in the WSR format. The training course includes:

- a placement test for assessment of the entrance level of knowledge;
- methodical recommendations about preparation and giving a fragment of a lesson (the stage of discovery of new knowledge) in primary school on one of the school subjects;
- video record of a lesson fragment;
- the test *Specifics of preparing a lesson in the context of FGOS NOO (Federal State Educational Standard of Primary General Education)*;
- video lessons of effective use of the interactive equipment by the primary school teacher at a

lesson;

- the test *Algorithm of creating the teacher's own educational means with the help of interactive equipment*;
- methodical recommendations and video lessons on work with training research equipment (lab disk, electronic microscope).

The experience of holding the demonstration examination in 2017 and 2018 in WSR Competence R21 *Primary School Teaching* is very interesting. The demonstration examination was introduced step by step as one of additional forms of holding the State Final Certification of mid-level specialists on specialty 44.02.02 *Teaching in Primary School*, or as a procedure of intermediate certification on educational programs of secondary vocational education and higher education.

Results

In 2017 519 participants from 4 regions of the Russian Federation (the city of Moscow, Moscow, Samara and Chelyabinsk regions) took part in the experiment. In 2018 the number of participants of the demonstration examination in Competence R21 *Primary School Teaching* increased almost threefold – 1440 graduates from 24 regions of the Russian Federation (Tula, Novosibirsk, Murmansk, Samara, Orenburg, Kemerovo, Chelyabinsk, Novgorod, Tomsk, Kursk, Vladimir, Saratov, Tyumen and Smolensk regions, the Republic of Buryatia, the Republic of Tatarstan, the city of Moscow, the Udmurt Republic, the Republic of Bashkortostan, the city of Sevastopol, the Khabarovsk Krai, the Krasnodar Krai, the Perm Krai, the Primorsky Krai). Participation of the Competence in the experiment for approbation of a new format of the State Final Certification became possible thanks to meeting a number of obligatory conditions.

The procedure of performing the demonstration examination task and its assessment took place in educational institutions where material and technical resources conformed to the Union WorldSkills Russia requirements. On the basis of competitive selection such colleges were given the status of the Centers for Holding Demonstration Examination (CHDE) according to the standards of WorldSkills Russia. The number of such centers increased from four in 2017 to thirty eight in 2018.

Readiness of territories (regions) for holding the final assessment in this format was defined by the number of certified experts as well as of experts having certificates on the right of holding a regional championship and on the right of participation in assessment of the demonstration examination. From Table 3 it is visible that the expert community of the Competence *almost tripled*.

Table 3

Year	Total	To number of certified experts	Number of experts having certificates on the right to holding regional championships	Number of experts, on the right to participation in the demonstration examination
2016	81	2	79	0
2017	137	12	27	98
2018	302	25	154	123

The demonstration examination was held with the use of control and measuring materials of the Finals of the National WorldSkills Russia championships. During the examination graduates projected and showed a fragment of a lesson of discovering new knowledge, a fragment of extracurricular activities. The main focus was placed on assessment of the active nature of teaching when primary school students together with the teacher got and mastered something new for them. The participants of the examination showed their ability to solve pedagogical problems and to build interaction with colleagues and students' parents, ICT-competences when creating their own methodical means and personal websites.

The created expert community of the Competence made possible the organization of independent assessment during the examination. About 50 experts participated in the demonstration examination of 2017, in 2018 there were more than 300 experts connected with this work. To meet the principles of objectivity applied to the State Final Certification, the experts who had taken part in training graduates or represented the same educational institution with examined students were not allowed to assess the results of the demonstration examination.

After the demonstration examination in 2018 an expert survey of organizers, participants and experts, including those from the number of employers, was carried out. It showed positive assessment of the new format of independent assessment of qualifications given by the professional community.

Conclusions

On the basis of the analysis of the procedure and materials of the demonstration examination in WorldSkills Russia Competence R21 *Primary School Teaching* it is possible to draw the following conclusions:

- the demonstration examination acts as a new standardized format of the State Final Certification which is not in a conflict with the existing traditional format;
- assessment is carried out according to uniform regulations with the use of uniform assessment materials; the estimates of formation of separate competences received during the examination are summarized in the assessment mastering professional activities recorded in the document of a uniform format – the so-called Skills Passport;
- the final assesment of graduates in this format is organized only as "external", independent of the educational institutions providing educational services;
- the principle of openness of tools and results of certification in the format of the demonstration examination for all interested parties is implemented.

The introduction of the demonstration examination in WorldSkills Russia Competence R21 *Primary School Teaching* into mass practice and the development of its methodical support became the main results of the project. It proved that in the sphere of secondary vocational education of teachers the new format of the standardized assessment of competences of graduates allows to record uniformly in all the regions of the Russian Federation the level of achievement of education aims. The demonstration examination in the WSR format provides independent and objective assessment, considering the inquiries of employers. It opens new opportunities for the use of examination results in procedures of quality control of the system of secondary vocational education.

References

- Ashikhmina, E. A., Ashikhmin, S. A., & Fridman, M. F. (2018). WorldSkills Movement in Human Resources Policy as a Condition of Economic Development of the Region. *Vestnik Moskovskogo*

Gosudarstvennogo Oblastnogo Universiteta. Seriya: Ekonomika – Bulletin of Moscow Region State University. Series: Economics, (4), 46–57. Retrieved from: <https://vestnik-mgou.ru/Articles/Doc/12671>.

- List of assignments based on the results of the meeting with the members of the national team of Russia on professional skills on 09.12. 2016. IIP-2582 of 26.12.2016. (2016). Retrieved from: <http://www.kremlin.ru/acts/assignments/orders/53682>.
- Order of the Ministry of Education and Science of the Russian Federation No. 1353 of October 27, 2014 “About the Approval of the Federal State Educational Standard of Secondary Vocational Education on 44.02.02 *Teaching in Primary School*”. Retrieved from: <http://www.garant.ru/products/ipo/prime/doc/70709794/>.
- Order of the Union WorldSkills Russia of 30.11.2016, No. PO/19 "About the pilot approbation of holding the demonstration examination on WorldSkills Russia standards in 2017". Retrieved from: https://www.sutkt.ru/documents/WSR/prikaz_de.pdf.
- Order of the Union WorldSkills Russia of 31.01.2019, No. 31.01.2019-1 "About the approval of the technique of organization and holding the demonstration examination on WorldSkills Russia standards”. Retrieved from: <https://worldskills.ru/nashi-proektyi/demonstracionnyj-ekzamen/demonstracionnyj-ekzamen-2019/documents/>.
- Yakovleva, E. N., & Krasilova, I. Y. (2015). From the experience of teacher certification in foreign countries. *Obrazovaniye i Nauka (Education and Science)*, 9(128), 147-160. Retrieved from: https://www.edscience.ru/jour/article/view/517?locale=ru_RU.
- Yakovleva, E. N., Voiteleva, G. V., & Krasilova, I. Y. (2018). NEW FORMATS OF INDEPENDENT ASSESSMENT OF COMPETENCES IN THE TEACHER TRAINING SYSTEM. *Astra Salvensis*, 2, 155-168.