# Modern "challenges" in the system of personnel training: standardization and innovations

System of personnel training

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Natalia Zaitseva and Elena Dzhandzhugazova Russian State Trade and Economics University, Moscow, Russia, and Natalya Bondarchuk and Marina Zhukova Peoble's Friendship University of Russia, Moscow, Russia

#### Abstract

**Purpose** – The study of the problems hindering improvement of the system of training through standardization of qualification requirements is relevant because, in a globalized system of teaching staff and high rates of migration, not only national but also international requirements for employees should be considered. This increases the competitiveness of university and college graduates in different countries. The purpose of this paper is to develop recommendations for the creation of a system of lifelong learning through the application of professional standards.

**Design/methodology/approach** – The leading method in the study of this problem is the comparative analysis of the experiences of different countries to improve the training system based on the use of qualification frameworks.

**Findings** – The paper offers science-based measures of integration and the international experience of lifelong learning, through the application of standards of World Skills International, as well as the requirements of professional standards.

Originality/value — The authors formulate the conceptual directions for the application of professional standards in not only the continuous training and qualification of personnel, which allows identifying "gaps" in the competences, but also building individual educational trajectory. Article submissions are of practical value to the organization, personnel training as well as scientists engaged in the study of international best practice using standardization requirements for the qualification of personnel in education.

**Keywords** Standardization, Expertise, Migrants, Training, Assessment of qualifications

Paper type Research paper

#### 1. Introduction

## 1.1 Actuality of research

Under the state of globalizing socio-economic space, the problem of search for universal approaches to personnel training has become especially topical. These approaches should be based on the system of norms and standards, which would be acknowledged not only at national but also at the international level. For that, it is important to take into account innovational tendencies and technologies (Afrazeh. 2005).

This problem has become especially important over recent years as the flow of migrants from less-developed countries and countries with destroyed economy by war to developed countries of Europe increased. This process started long ago, but over recent years the rate of migration has increased tremendously. That is why there are reasons to believe that this process will continue, even if the European countries make effective decisions on this issue. This happens because the decisions made are aimed at elimination of consequences rather than reasons of population migration – people searching for safe and stable life for their families.

In 2014, i.e., before the massive flow of refugees and migrants, the report by the Office of the United Nations High Commissioner for Refugees "Global tendencies" stated that the number of forced refugees around the world has reached 59.5 million people, which was 8.3 million more than that in 2013 (Office of the United Nations High Commissioner, 2014). At present, most migrants are not those people who temporarily move to another country for temporary residence, including working, but refugees, i.e., internally displaced persons.



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According to the data of the report, every 122nd denizen of the Earth belonged to these categories in 2014.

Migrants, who arrive into Europe, face the problems of adaptation in society and finding a job. It is obvious that European system of personnel training and their further employment, which developed in the twentieth century, should be cardinally changed in order to meet modern social challenges.

## 1.2 Overview of the system of standardization of requirements to personnel

At present, each country has its own national framework for personnel training, which, despite significant changes of the European model of education at the end of twentieth century (introduction of the Bologna System) and establishment of the European framework of qualifications in 2008, limits possibilities for access to the labor market for not only migrants from Africa, Asia, and former Soviet Union, but also migrants from other countries of Europe. It is caused by regulations of national system of standardization of requirements to personnel (Hafeez *et al.*, 2002).

Any system of standardization of requirements to personnel as to their training and existing qualifications is aimed at solving two problems (Becker, 2001):

- ensuring mobility of population within the country for provision of possibility of maximal professional self-realization; and
- (2) providing new possibilities for return into the system of personnel training and labor market for people who have lost their job or do not possess necessary formal qualifications.

That is why most of the systems of standardization of requirements to personnel are built on the basis of a national system of continuous education during the whole life. For example, in 2006, the Federal Ministry of Education and Scientific Research (BMBF) and the Ministry for Education and Culture of Federal States (KMK) made a decision on joint development of National Framework of Qualifications for studying during the whole life. Realization of this project, which was approbated in 2009, was systematization and classification of diversity of qualifications, which existed in Germany at the time, within all segments of educational systems. Similar projects were realized in almost all countries of Europe (Folmer and Jeppesen, 2003). However, as events of this year show, all problems which hinder mobility of population within single European space were not eliminated – not only for migrants but also for citizens of the EU (Holtzman, 2008).

#### 2. Research methods

The leading method of the research of this problem is a comparative analysis of experience of various countries for improvement of the system of personnel training on the basis of the use of qualification frameworks.

The use of methods of sociological studies for theoretical and practical problems for improvement of the system of personnel training, standardization of requirements to personnel, and methods of their evaluation and certification allowed determining main tendencies in these processes and distinguishing the important ones, the influence of which can become very important in future.

#### 3. Research results and discussion

#### 3.1 Research results

As a result of the study of the existing systems of personnel training on the basis of standardization of requirements to qualifications, the authors of this paper analyzed various national system and qualification frameworks, which allowed determining the main

problems in the existing systems of personnel training and developing recommendations for their minimization or elimination.

First of all, it was important to understand what principles were made on the basis of the existing systems of standardization of requirements to employees' qualifications. It was determined that with all differences in various countries, this standardization is based on requirements to the level of employees' acquiring competences necessary in certain sphere of practical activities. Therefore, the next issue was which groups of competences should be taken into account during the evaluation of employees' qualifications.

The notion of competence is derived from the Latin word "competere," which means "to correspond, to fit." The very meaning of this word denotes that any competence can be evaluated if there is a certain standard or model, to which comparison is made. The models can be requirements of professional, sectorial standards (requirements of employers to employees) or educational standards (requirements of the system of personnel training to graduates) (Driscoll *et al.*, 2001).

Apart from division of competences in terms of types, they are also described in various approaches in terms of levels and without levels. An example of description of competences according to types, but without levels, is of great importance in educational standards. For example, in Russia, competences in federal educational standards are divided into cultural and professional competences.

Cultural competences can be similar for various directions of training, whereas professional competences depend on the type of professional activities. For example, in the Russian federal educational standard for specialty "Management" (bachelor's program), formation of professional competences of a graduate is aimed at his/her preparation for solving future professional tasks in the sphere of organizational and managerial, informational and analytical, and business activities.

In professional standards, competences are described without division into cultural and professional competences, but for each level of qualification requirements to knowledge, skills and experience of practical activities. Also, the description of these requirements according to levels within corporate models of competences is mandatory. In regard to that, special attention is paid to the description of the so-called "behavioral indicators", i.e., how these competences should be manifested in labor behavior of employees within competitive organizations (Monacko, 2008).

The study of European approaches to the description of competences allowed determining approaches which are similar to Russian ones. Thus, in the National Framework of Qualifications of Germany, all competences are united into two large groups: "professional" and "personal". Professional competences describe requirements to the level of knowledge and skills of employees, capabilities and readiness to fulfill professional tasks, accompany and evaluate results of these activities. Group of personal competences includes two sub-groups: social competences and the ones which characterize autonomy of employee in professional aspect. These two sub-groups of competences describe employee's capabilities and readiness for independent and responsible organization of own activities, viewed in the cultural, social and professional context (Stefanenko and Kupavskaya, 2010).

Germany determines eight levels of qualifications, whereas Russia nine. However, approaches to the description of these levels are similar. First of all, determination of specific levels of qualifications is based on the complexity of the tasks. In Russia, during the description of qualification levels, requirements to skills, knowledge and qualification level are determined, depending on authorities and responsibilities of an employee, for example, the first level of qualification – employee's activities under the guidance, just personal responsibility during fulfillment of standard tasks (mostly physical labor). Quite in contrast, the ninth level of qualification means activities for determination of a strategy for the development of large companies at the national or international level.

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For the purpose of standardization of requirements to personnel qualification, so-called descriptors are determined and described. In generally accepted meaning of this notion, descriptor is a general, objective description of a set of characteristics which an applicant for a certain job should possess (Polzer, 2008). In order to confirm that the applicant possesses such characteristics, it is not necessary to evaluate him/her within specific enterprise – he/she can undergo such evaluation in professional centers of qualification evaluation.

The system of evaluation of qualifications for the purpose of confirmation of employees' possession of descriptors that are necessary for a certain job has been used in Europe for a long time. In Russia, this process is at the stage of development. Thus, in 2000-2010, attempts were made for creation of sectorial and regional centers of voluntary certification of qualifications. However, this system did not become popular and ceased to exist (Zaitseva et al., 2015). In 2014-2015, the work for its actualization began – due to orders from the president of the Russian Federation (Kozhanova et al., 2015).

Thus, it is obvious that with certain common approaches to personnel training on the basis of standardization of requirements to qualifications in Russia and Europe, there are certain differences which are expressed in the issues of personnel mobility and adaptation in other countries.

## 3.2 Discussions

At present, active discussion is going on the issues of search for universal approaches to personnel training which, on one hand, would take into account the existing professional standards and sectorial frameworks of qualifications, and on the other hand modern "challenges" which the system of personnel training for the global economy faces. Different scientists evaluate them differently and see their consequences for future education and system of personnel training on the whole.

Thus, according to Alexandr Laszlo (2014), the president of the International Association of Systemic Sciences, "New standard of education should open student's potential and should derive from the Latin 'educare,' which means educe, not fill." According to him, the main challenge for the system of education is to find a way of formation of not only the skills but also the way of thinking and motivation of student: in what world do you want to live? How can you participate in the changes? Besides, according to him, modern generation of pupils and students can use their devices to play interactive games to quickly obtain a lot of information through symbolic images. Still, studying is boring. Therefore, it is necessary to teach by transition of information through symbols and images.

A lot has been done in this direction. The dean of WU Executiva Academy, Bodo Schlegelmilch, manager of the study of international expert group The New Media Consortium prepared the report "MNC Horizon Report: 2015 Higher Education Edition" stating how new technologies will replace higher education in the world (MNC Horizon Report, 2015). The main emphasis in this report is put on the use of mobile devices and mobile technologies of training for increasing the flexibility of training and increasing students' independence. In our opinion, special attention should be paid to the technology of organization of space for practical studying, known under the name Makerspace. Such spaces, equipped with 3D printers and 3D scanners, will stimulate joint work of students and development of skills which are required by employers and sometimes go beyond the limits of educational programs.

Even the modern educational technologies will not be effective if the vector of training is incorrect: with orientation at the past or future. According to the main futurologist of the DaVinci Institute and the best lecturer on the future (according to Google), Thomas Frey (2015), main "challenges" to the system of personnel training consist in the fact that it does not prepare students to professions of the future. According to the studies of the DaVinci Institute scientists, there will be a need for such specialists as "maximizers" (people capable of increasing processes, situations, and possibilities), "disassemblers" (specialists for production closure,

as development of each industry has its end), and "contextualists" (specialist who set up the process of realization of final product, i.e. work on real implementation of innovational ideas).

The same results were obtained by another "specialist on future" – technological futurologist Ray (2015). Similar studies on the basis of the use of foresight technologies (Gubach, 2013) were conducted in the Russian R&D organizations (Rakitov, 2004), which led to the appearance of "Atlas of new professions" (Atlas of new professions: Version 2.0, 2014).

European and Russian socio-economic processes, which are directly influenced by economic and political crisis, often lead to the appearance of new technological and innovational "challenges" (The foresight of the Russian education 2030 (2013)). The necessity for mobility and adaptation of personnel to changing environment is very actual.

Thus, according to the recent data, unemployment in Europe exceeds 10 percent, reaching 20 percent in certain countries. In Russia, unemployment level is also very high – 12 percent (The Generations Manifesto, 2015). Though it is lower than the global value, which constituted 13 percent as of mid-2015, it leads to big problems and increases the level of social tension in society, especially among the most vulnerable part of society – youth.

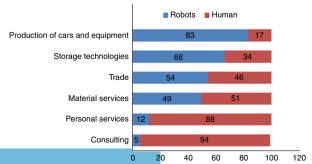
It is advisable to include into the complex of measures of state support for youth and other population groups, which face the problems with employment (including migrants from other countries) the measures for improvement of personnel training. It is important to integrate and standardize requirements to personnel competences, including the part of their training in educational organizations.

Industrial revolution, which takes place in developed countries, leads to a reduction of routine human labor, replacing it with robotized and machine labor. Hence, production capacities become more flexible, which allows them to adapt to new requirements of consumers. However, not all processes can be replaced by robots. The authors of the paper studied opinions of employers from various spheres of Russian economy, which showed that they have different thoughts on the possibility of human's replacement in economic processes. The results of the research are given in Figure 1.

According to the scheme in Figure 1, we can see that despite all perspectives of development of robot technologies, there will be spheres of activities in which a human cannot be replaced. These spheres include personal services and especially consulting – these were the answers of 12 and 6 percent of the respondents.

Therefore, despite all innovational "challenges" and changes in technologies of manufacture of goods and provision of services, there will be certain types of professional activities, for which it is impossible to replace human labor by robot labor – but requirements to personnel with them will also grow.

On the basis of the conducted analysis of the existing approaches to account of modern "challenges" to the system of personnel training, the authors of the paper developed the following scheme of mechanism of accounting of change of factors of the external and internal environment in the system of personnel training (Figure 2).



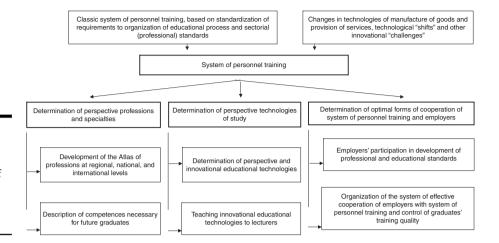
Pigure 1.
Distribution of answers of Russian employers regarding perspectives of human labor replacement by machine (robotized) labor



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Figure 2. Conceptual model of account of modern "challenges" to the system of personnel training



#### 4. Conclusion

Thus, it is obvious that the solution of the problems of migrants, including qualified personnel, even within European cooperation, is possible only by creating unified standards of requirements to personnel. These requirements should be unified or suppose the presence of certain "connectors" – scale of qualifications which allows comparing competences stated in standards of different countries. This will allow creating a basis for procedures of acknowledgment of results of independent evaluation of qualifications acquired in different countries.

Realization of such an approach will lead to solution of the problem of employment for voluntary and forced migrants and an increase in their competitiveness at labor markets which are new for them, and will provide economy of European countries with qualified employees capable of working with new technologies.

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#### About the authors

Natalia A. Zaitseva (Doctor of Economics) is a Professor at the Department of Hotel and Tourist Business, Plekhanov Russian University of Economics, Moscow, Russia. Her Main scientific interests are tourism, hospitality industry, management in tourism and hospitality, HR management, corporate culture, HR training, competences, professional standards, national system of professional qualifications, transborder cooperation. Natalia A. Zaitseva has published more than 300 scientific works in the sphere of economics and marketing in tourism and recreation. The author of 11 books and study guides and also the Manager of more than 20 R&D projects, including the project "Diversification of economic activity of the subjects of the RF on the basis of transborder cooperation in the sphere of using the tourist and recreational potential of territories" (grant of the RFBR (2016-2018)). Natalia Zaitseva is the corresponding author and can be contacted at: sciencescience57@yahoo.com

Elena A. Dzhandzhugazova (Professor, Doctor of Economics) is the Director of the Research Institute for the Hospitality Industry, Plekhanov Russian University of Economics, Moscow, Russia also the Editor-in-Chief of Russian Regions: Looking into the Future (HYPERLINK "http://static1.1. sqspcdn.com; http://www.futureruss.ru/" \t "\_blank"www.futureruss.ru). Her main scientific interests are regional economics, economics of service sphere, economics of tourism and hotel business, tourism marketing, marketing of tourist and hotel services, place marketing, branding of territories, tourist and recreational and regional planning, internet marketing, knowledge economics, information economics. Elena A. Dzhandzhugazova has published more than 250 scientific works in the sphere of economics



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and marketing in tourism and recreation and is also the Manager of more than 20 R&D projects, including the project "Live map of Russia".

Natalya V. Bondarchuk (Doctor of Economics) is a Professor at the Russian University of Friendship of Peoples (RUDN University), Moscow, Russia. Her main scientific interests are economics, finance, financial management, innovations, management, corporate finance, economic analysis, dividend policy, financial coefficients, taxation. Natalya V. Bondarchuk has published more than 100 scientific works in the sphere of economics, financial management, and taxation.

Marina A. Zhukova (Professor, Doctor of Economics) is a Professor at the State University of Management. Her main scientific interests are tourism and hotel business, sport, management, economics, information technologies. Marina A. Zhukova has published more than 100 scientific works in the sphere of economics, financial management, and taxation also the Author of ten study guides.

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