

## Approaches to Monitoring of Competences and Qualifications

Marina V. Simonova<sup>a</sup>, Larisa A. Ilyukhina<sup>a</sup>, Gennadij M. Romantsev<sup>b</sup>  
Evald F. Zeer<sup>b</sup> and Ferdinand T. Khamatnurov<sup>b</sup>

<sup>a</sup>Samara State University of Economics, RUSSIA; <sup>b</sup>Russian State Vocational Pedagogical University, RUSSIA

### ABSTRACT

The relevance of the analyzed issue is caused by the need to assess the state of competences and qualifications in the labor market in the region. The purpose of the article is the substantiation of approaches to the integrated monitoring training status, conditions of formation and use of labor, the results of which will complement the statistics. The leading approach to the study of this issue is the development of a new monitoring methodology to identify the qualitative characteristics of the labor force in the quantitative parameters. Results: the authors have developed conceptual approaches and structural elements of quality monitoring of labor at regional level. The identified shortcomings of existing competences and qualifications of monitoring techniques necessitated the search for other approaches to the assessment of the real state of the qualitative characteristics of the labor force in the labor market, as collected data can significantly affect the results of the personnel forecast and formation of labor potential management strategies. The study was proposed to focus on improving the quality of personnel management departments of large and medium-sized organizations in the region to solve the problem of the interaction between the education system and employers. The data of the article may be useful for research organizations and regional governance structures in the development of medium- and long-term development programs of labor potential.

### KEYWORDS

Competences; forecast; qualifications; monitoring; personnel potential

### ARTICLE HISTORY

Received 23 March 2016  
Revised 19 May 2016  
Accepted 19 May 2016

### Introduction

Development of Russian economy has different periods from economic growth before crisis that requires continuous correction of the existing strategy, both at

**CORRESPONDENCE** Marina V. Simonova ✉ [est-samara@mail.ru](mailto:est-samara@mail.ru)

© 2016 Simonova et al. Open Access terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>) apply. The license permits unrestricted use, distribution, and reproduction in any medium, on the condition that users give exact credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if they made any changes.

governmental and economic level. In these conditions labor potential becomes a key factor that forms a basis for quality changes in the national economy, it is an economic vector that allows being focused on dynamic forward development.

Enterprise competitiveness is defined by a number of factors, a human factor in recent years is getting more vital, influencing enterprise efficiency and product quality (Scholz et al., 2004). Innovative enterprise development and creation of new technologies are defined first of all by creative, scientific potential, necessary conditions are created to implement it. The people with corresponding preparation, personal and business qualities can change a crisis situation, increase production dynamics, create new management principles. At the same time in the country there is a deficiency of qualitative labor in labor market that in most cases has a structural origin. Such problems are typical for many countries of the world (Jacobsen & Skillman, 2004). In the conditions of long crisis, despite increasing unemployment level, there is the necessity for qualified labor. Various economic, governmental, public and economic institutions that are involved in economy and provided with labor work operate discretely; they proceed from departmental interests and don't have a common goal that results in efficiency decrease of labor potential realization. To define the reasons for this situation complex assessment is necessary, formation conditions and use of labor, definition of strategic directions in the development of labor potential that is a basis of labor quality. Scientific and technical progress and innovations promote not only to increase car productivity, equipment reliability and production durability, but also have essential impact on requirements to labor force at all official and professional levels at the enterprises of all ownership forms (Junge, Severgnini & Sørensen, 2015). Due to structural changes and gradual transition to post-industrial society which principles are information technologies and there is a transformation of social and economic relationships, the role of a human factor changes significantly. Developed labor potential becomes a key element to increase production efficiency and production quality (Chowdhury & Mukherjee, 2015).

Management of labor potential is a system task and various governmental, economic, social and public, legal, economic institutions have to be involved to solve it, and their constructive interaction has to provide a necessary level of labor quality (Werquin, 2007). In the conditions of stagnation and decline in production when labor market performance is characterized by difficult processes (Heijde & Heijden, 2006), the national system of competences and qualifications can be a strategic guide mark in the development of labor quality.

There is a necessity for scientific justification and approach development to the complex problem solution of effective labor potential management both on macro - and microlevels to create the conditions for stable improvement of labor quality. It becomes the main tool for effective production functioning on the one hand, and on the other hand to provide personal needs of labor force, employment and improvement of life quality.

The structural imbalance increasing in recent years in labor market testifies about the problems in interaction of an education system and employers, insufficiency of regulation measures of supply and demand of labor force. There is an issue of quality for labor forces to satisfy economy requirements. To define the reasons for this situation and elaborate

development strategy, complex monitoring of preparation state, formation conditions and use of labor force is necessary.

## **Methodological Framework**

### **Research methods**

In the course of research the following methods were used: theoretical - method of formalization and modeling to describe the system requirements to competences and qualifications; Diagnostics - structural, functional and organizational diagnosis of the key management components of the personnel at enterprises to detect the state of quality of the workforce at the regional level; method of comparison - a comparison of the levels of development of the components of personnel management systems at enterprises of the region; the necessity of experimental studies on the proposed methodology; It is proposed to use the methods of mathematical statistics and regression analysis, with the help of which it is necessary to analyze obtained quality characteristics of the labor force and the graphical representation of the results.

### **Experimental research base**

Experimental research base are companies of the Samara region, data that is necessary to approve the proposed methodology for monitoring competencies and qualifications.

### **Research stages**

The studies were conducted in three stages in 2015-2016. The first stage (2015) - propaedeutic: studied the historical background of the formation of competences and qualifications, an overview of existing methods of monitoring assessment of quality of the workforce, influencing factors on the results of the monitoring, analysis of the current situation, identified development opportunities. The second stage (2015-2016 years) - prognostic, developed a scientific research unit, determined by its object, subject, goals, objectives; examined the state of human resource management systems, analyzed the possibility of the influence of human resource management system on competences and qualifications, periodicals, accumulated and tested the necessary economic tools. The third stage (2016) - converts: developed methodological bases of monitoring of competencies and qualifications, developed a concept and model, the structure of the monitoring procedure, carried out the systematization of results and compilation of findings, practical recommendations.

The delayed effect of results of any actions to form labor potential, uncertainty of basic data, coordination complexity of activity of separate state, public and commercial organizations involved in the process define task relevance in formation and realization of management strategy of labor potential at all levels. Regional level is the most essential from the point of view of an optimum combination of forecast opportunities and realization of macro and microeconomic processes. In this regard it is necessary to develop a complete strategic development program and labor capacity realization of the region on the basis of reasonable formation concept of the personnel forecast at the regional level which basic elements we developed in the previous research.

The modern economic situation is distinguished by dynamics increase of society development on the basis of technological innovations. The economy

structure changes, there is a change of labor content at the innovative enterprises (Belloc, 2012). All these changes are qualitative, influencing the system of valuable reference points in labor activity. The changed work nature defines the emergence of new employment forms, professions and specialties that are not typical for industrial economy.

Change in economy structure occurs at the expense of increase in a share of the enterprises making information and services as consumer products. Technological facilities of the enterprises are means of communication, information transfer and storages. Unlike industrial manufactures there is no visible technological production process which during the industrial period allowed systematizing and typifying labor processes. The new type of the enterprises defines new production relations, transferring focus from the interaction between mechanisms and a person to interaction between people, so the relations become more public, bringing personal and social characteristics into labor system (Castells, 2010).

The description and the analysis of labor activity is a basis for many administrative and economic actions that enable to optimize labor process in qualitative and quantitative parameters, to define a compensation system. On the basis of such analysis during the Soviet period labor norms and standards of various employee categories were created from workers to technical specialties. At present stage many norms and standards cannot be used due to changed production nature, emergence of new labor and employment types. Labor becomes more creative, breaking traditional ideas of rationing and labor productivity. However the necessity for determination of economic labor parameters does not disappear, but strengthens (Donaghey et al., 2014).

There are a lot of issues regarding salaries and wages in this situation, work duration and performance. All these processes have to be based on the new content of economic concepts that are hard to be connected.

Work that is carried out by production of information products is difficult to measure due to lack of visible physical actions. In many cases work results in the form of a software product or service do not reflect the content and difficulty of labor process that is spent for product production. Work results are assessed not only by complexity, novelty and labor input, but also by a product demand in the market and by a consumer demand, than by spent efforts and complexity of labor process.

At the information enterprises that produce high technologies, work content is mainly intellectual that influences traditional labor concepts, such as labor quality, labor productivity, work performance. The new type of work and labor relations get into all spheres of economic activity not only into high technology and information enterprises. Industrial production dominates in the system of national economy, but information technologies influence not only changes of labor tools, but social and labor relations (Riisgaard & Hammer, 2011). There are high-quality shifts in all labor system and labor relations.

In these circumstances the satisfaction of employers' requirements to high quality labor is rather difficult and ambiguous due to essential distinctions in qualitative characteristics that are unique for each organization. There are many unsolved problems regarding structure organization and the content of education system, and also quality assessment of graduate preparation (Scholz et al., 2004). The education system, even in the conditions of large-scale

reforms cannot satisfy employers due to many reasons. The implemented reforms of an education system in general that are directed on the correction of negative situation haven't reached a desirable result yet. Reforming large-scale and branched system as education cannot occur in one stage, a sufficient period is necessary to implement reforms and elaborate functioning models that are relevant in this situation.

Goals realization of labor potential development is connected with the necessity to implement periodic monitoring of the current situation to assess the productivity of held events and possible correction of undertaken actions. One of the least researched and debatable parameter of personnel forecast is data collection by monitoring results of competences and qualifications. Monitoring goals and tasks, assessment means, parameters and criteria are complex and ambiguous.

At the same time monitoring data allow assessing a real condition of labor potential in connection to parameters of economic activity of enterprises and institutions and it is impossible to receive it in other ways (Vyalkov, Glukhova & Martynchik, 2015).

Thus, conducting periodic monitoring of a labor quality is obviously a necessary condition to achieve a labor market balance. Monitoring of a real situation is usually carried out by questioning working-age population. On the basis of monitoring the following structural components of labor potential can be measured: real level of competences and qualifications, physical and mental health of the population, cognitive potential, creativity, communication skills, cultural and moral level, and necessity for achievement. However it is necessary to consider that along with such clear advantages as efficiency of information collection and detailed analysis of a database, monitoring has also some drawbacks: preparation of questionnaires and technical design specification, competent selection, organizing poll and database formation. Parameters formalization of monitoring implementation is a complex analytical challenge. Employer surveys by various techniques (Alasheev, Drachinskaya & Kadkina, 2002) have in our opinion a number of restrictions and essential drawbacks leaving received results in a serious doubt:

- Questionnaires have bulky structure;
- Filling questionnaires requires much time;
- The content of the questions assumes applying information on enterprise activity which is not always available;
- Questionnaires are subjective;
- Completed questionnaires are hardly ever returned;
- People who are responsible for filling questionnaires are not competent enough;

The revealed drawbacks caused the necessity for other approaches to identify the real level of competences and qualifications in labor market as the data collected as a result can influence the results of the personnel forecast significantly. Reliability and formality of the received results have to become key criteria on which the applied technique has to be focused.

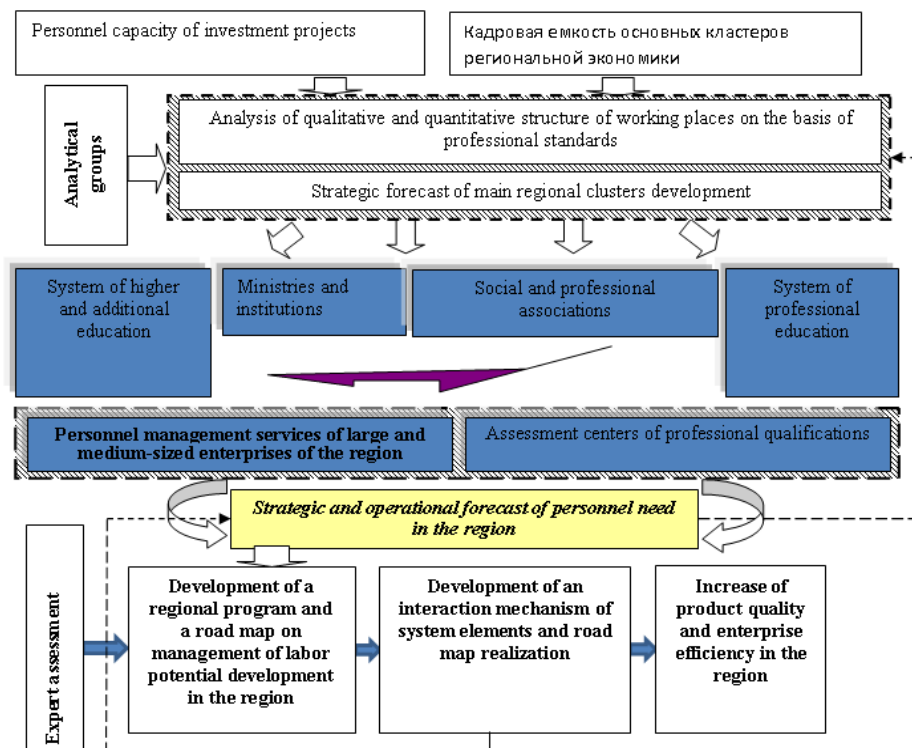
## Results

In our opinion, to develop monitoring technique of competences and qualifications it is possible to be guided by the approach focused on a key role of a company personnel policy of the region in formation of labor capacity of the region (Hadasevich, 2015). The importance of the personnel technologies applied in the companies to ensure employment quality, quality of labor life, labor potential development for internal requirements and for regional labor market seems to be quite reasonable. The offered system of the indicators which characterize the condition of labor capacity of the region enables to carry out an assessment rather authentically; however expert assessments are quite subjective to determine threshold values of the indicators. Besides, the system of indicators of management system components does not allow implementing a structural assessment of labor quality according to the national qualification framework.

The assessment technique of social personnel policy of the company is worth sharing, it has been developed by the Russian scientists of Higher School of Economics to assess the interrelation of a company development strategy and its personnel strategy (Gurkov, Zelenova & Saidov, 2009). Presentation of a problem and conducted research are rather challenging from the point of view of developed technique application to create a personnel forecast at the regional level and on its basis to elaborate a development program of labor capacity of the region. Here it is possible to allocate a reasonable data system on the characteristics of personnel performance in the companies and interrelation with a company strategy. The inclusiveness of the offered assessment technique into a unified empirical base seems to be challenging – results of comparative international research of human resource management workshop CRANET (Cranfield Networkon Comparative Human Resource Management) conducted by Cranfield School of Management (Great Britain) (Gurkov, Zelenova & Saidov, 2012).

In recent years in Russian scientific literature there are articles on the analysis of strategy development tendencies of human resource management, however theoretical justification of this new direction is at the initial stage and requires developed research. Less researched direction is the analysis of the interrelation of corporate personnel management systems and the development of regional personnel potential. The most effective resource of formation and development of the personnel potential is concentrated in the companies and it enables them to react quickly to dynamically changing economic, technological and political external situation. (Simonova & Panusin, 2014). Corporate personnel management systems came to rather advanced level within the years of market transformations in Russia and this level in many respects is comparable to the international level. In current situation leverage on career pursuing and employee development is more in the sphere of competences of company personnel service where an employee is involved, than in an education system. In a new paradigm educational institutions become the tool of personnel development, they do not manage career of employed and potentially employed population, they serve as built-in elements in a personal career and in a corporate personnel management system. In recent years the issue of the interaction of an education system and employers has become relevant (Bondarenko, 2013). In our opinion to find the solution to this problem it is necessary to place emphasis on the inclusion of human resource management services of large and medium-sized organizations of the region in a management

system of regional personnel potential. For example, in the Samara region that has rather developed labor resources there is no reasonable program of labor potential management for the long term. The necessity for such program development came to a head as separate elements on human potential development which is at programs of some ministries, departments, corporations drive up to dispersal of efforts, resources and means. The integrated approach to development of the program of management of personnel potential can be presented schematically in the following form (fig. 1).



**Figure 1.** Interaction System of Management Elements of Labor Potential

The key moment of the offered systems is the realization of national system of competences and qualifications at the regional level. The offered system is based on the development of scientifically based personnel forecast which has to consider a vocational structure of existing workplaces taking into account perspective development and implementation of investment projects. The national framework of qualifications and developed professional standards has to become an important element for the analysis of workplace structure of the regional economy (Yesenina, 2014). Despite advisory nature of qualification levels and relevant requirements to labor quality established by these documents they allow orienting in vocational structure of enterprises and companies, enable to define the necessity for competence development, to create a demanded structure of an education system of the region. In management of

regional labor capacity appraisal qualification centers have to play a crucial role, they will allow assessing the level of knowledge, abilities, skills objectively both of company personnel, and unemployed population, job applicants, graduates.

System coordination of goals and tasks of separate actions of regional ministries and departments is necessary, they can't assign duties and responsibility efficiently, as a result they receive the declarations which are not supported with results. Elaboration of labor potential development program will allow coordinating interdepartmental interests on the basis of common goal achievement. The mechanism of goal achievement has to help to realize a road map on a long-term, to determine exact terms, the team which are responsible for realization, to assess planned results. In general implementation of the development program of labor potential meets the requirements of an innovative development of regional economy as a human factor can serve as a driving force of dynamics of scientific and technical progress.

Technique development of monitoring implementation on the assessment of competences and qualifications has to become one of the necessary elements of personnel forecast development. In our opinion the analysis of personnel policy at large and medium-sized enterprises of the region, an assessment of productivity of personnel technologies, revealing objective data on the personnel which are not fixed by official statistics has to become a conceptual basis of such technique. The technique emphasis on productivity analysis of personnel policy of regional and multinational companies is proved by realization of widespread paradigm "education through life". The personnel policy and technologies in the companies become the real tool of regional management program of labor potential (Marchington & Grugulis, 2011). When carrying out the monitoring, education quality assessment in the institutions of professional and higher education has to be an important component of the analysis.

Monitoring implementation has to be based on the following rules:

- compliance of analysis parameters of personnel policy to company provision in structural classification in terms of cluster accessory and number of personnel;
- data measurability on objective characteristics;
- personal nature of interviewing of company heads who make personnel decisions;
- assignment of an education quality assessment in the separate block of monitoring.

The offered principles are substantiated by a goal of monitoring implementation— an assessment of current state of competences and qualifications at the regional level to draw up a scientifically based personnel forecast in addition to statistical and objective data.

The research object is competences and qualifications of labor resources of the Samara region. The research object is social and labor relations between the system of higher education and employers in the course of formation of competence and qualification system.

Scientific novelty of research is theoretical justification and development of methodical and practical recommendations on technique development of carrying out monitoring of competences and qualifications.



The practical importance of research results is the opportunity of application of materials, conclusions and recommendations when developing personnel forecast, regional management program of personnel potential, in the institutions of higher and professional education for target formation of competences and qualifications of graduates. The received research results can be used:

- regional public authorities for scientific justification and formation of management policy of labor potential;
- scientific organizations when developing scientific and methodical tools of personnel forecast;
- institutions of higher and professional education to improve education quality;
- assessment centers.

We suggest dividing the directions of company personnel policy assessment of the region into integrated issue groups corresponding to main functional spheres of personnel activity:

- stability of personnel number - fluidity dynamics allows revealing how the company is provided with labor resources, satisfaction of personnel requirements on official and qualification groups;
- labor compensation policy – availability or lack of differentiated compensation systems allows defining employer position on employee motivation increase;
- HR brand positions – company attractiveness as an employer allows assessing opportunities of workforce attraction of required quality;
- Selection criteria of the personnel – overestimated or underestimated requirements show the level of employers' claims to starting competences;
- system of assessment and personnel development – a system condition allows revealing relevant company development directions;
- quality of a labor agreement – formality of employee duties in the employment contract allows assessing the level of requirements to an employee according to a position;
- application of innovations in personnel technologies – shows performance of HR department in the company.

As a poll result it will be possible to structure companies on various signs, to distribute on clusters and work quality with the personnel. In spite of the fact that labor quality with the personnel is an indirect certificate of requirements' level to competences and qualifications in the company, such company systematization will allow allocating groups of companies with various requirements to competences and qualifications to which the personnel should correspond. The analysis of conditions on cluster groups, number of companies, kind of activity can show the general condition of labor quality in regional companies. In our opinion, for the personnel forecast such assessment will be more informative, than poll technique. The real assessment of competence level in professional activity should be carried out individually on each employee using approved techniques in assessment centers (Wiley, 1999). However

national assessment system of competences and qualifications is in a formation stage, these centers only start developing.

As additional possibility of performance assessment with the personnel it is possible to suggest using economic-mathematical calculation to define enterprise total expenses. This method will allow finding such volume of investments into personnel which will provide maximizing enterprise profitability. If we assume that transactional expenses are distributed on an exponent depending on the volume of “investments” into specialists, and total expenses can be presented in the sum conditionally – constants and variable expenses, there is optimum “volume of investment” which is defined by a ratio of specific transaction and variable (dependent) expenses on qualified personnel.

At invariable tariffs and constant specific cost of transactional expenses it is possible to find such volume of investment into personnel which will provide maximum of enterprise profitability (Patutina et al., 2015). The formula (1) establishing total enterprise expenses (S):

$$S = Tr + E = ae - bv + p + g \cdot V, \quad (1)$$

Where S – total expenses,

Tr – transactional expenses,

E – sum of conditional - constant and variable expenses,

a, b – parameters of arc demand,

p – conditional - constant expenses,

q – specific - dependent expenses,

V – number of specialists (target direction).

$$V = \frac{((\ln)_{ab} - (\ln)_{qg})}{b}, \quad (2)$$

Where V – number of specialists for the beginning of year;

Inab – a logarithm of arc demand;

Inq – logarithm of specific-dependent expenses.

At invariable tariffs and constant specific cost of transaction expenses it is possible to find such volume of investment into personnel which will provide a maximum of enterprise profitability (3).

$$R = \frac{C \cdot V}{(p + g \cdot V + ae^{-bv})}, \quad (3)$$

Where, R- optimal “volume of investment” into specialists;

C – average cost of training;

V – number of specialists (target direction);

p – conditional-constant expenses;

q – specific - dependent expenses;

a, b – parameters of arc demand.

The formula establishing determinants of labor efficiency (E):

$$E = f(Kgen) = f(Kfunc; Kpers), \quad (4)$$

Where, Kgen – the level of actual competence;

Kfunc - level of his functional competence;

Kpers – level of personal competence of the specialist displaying his internal motivation.

Thus, this formula will allow revealing labor efficiency level of a specialist at his assessment. The competence-based model integrates two groups of competences: functional and personal which actual manifestation in practice provides labor efficiency in a certain sphere of professional activity.

Functional and personal competences of an employee reflect the level of actual manifestation in practice of specialist potential competences. The level of actual manifestation of competences characterizes specialist competence and allows forecasting employee performance more reasonably. The actual (shown) competence shows as far as an employee corresponds to a certain workplace or task. Depending on goals there can be made a comparison of functional and personal employee competence with potential competences, and also a competence correspondence assessment of a specialist to ideal characteristics; it is expedient to use assessment results at personnel selection and certification. Functional and personal competence of a specialist are directly connected with internal employee motivation and external company motivation.

### Discussions

Due to multidimensionality of the concept “potential” which is used in the majority of known sciences, labor potential is interpreted from the point of view of an assessment of economic, demographic, social, occupation, regional features, but did not receive a unified interpretation. In Russia books of A.S. Pankratov (1988), R.P. Kolosova (1987) and other authors are devoted to the research of labor potential. The approach to potential as to the unit of characteristics of the past present and future allows it to function as a system and is worth sharing. (Great Soviet Encyclopedia, 1975). At the same time labor potential is objective reality, its further studying can give understanding of occurring economic processes. However, the acknowledged methodology of labor potential research, its assessment, reproduction management isn't elaborated yet. Therefore comprehensive investigations of labor potential promote the accumulation of scientific thought and understanding the process to apply it in economic, social and regional research.

There are two main approaches to understanding the category “regional labor capacity” (Garipova, 2003): resource and factorial. The divergences in these approaches are designated to define a qualitative feature of labor potential, and in quantitative aspect their differences from each other are generally terminological, not essential (Rimashevskaya et al., 2012).

The examples of quality assessment of labor potential on the basis of monitoring are the technique of T. Hlopova & M. Dyakovich (2003) and the technique of labor potential assessment presented in the research of Institute of Social and Economic Issues of the Population of the Russian Academy of Sciences and it has been used by Institute of Social and Economic of Area Development of the Russian Academy of Sciences (Gulin, Shabunova & Chekmareva, 2009; Ilyin, 2009) to assess labor potential since 1996.

Monitoring of labor capacity of the region is carried out by questioning working-age population. For example, according to the technique of Institute of

Social and Economic Issues of the Population of the Russian Academy of Sciences on the basis of monitoring the following structural components of labor potential are measured: physical and mental health of the population, cognitive potential, creativity, communication skills, cultural and moral level, and necessity for achievement.

In our opinion these and other used techniques to define labor potential are essential as an indicator of a variety of approaches to the monitoring of labor qualitative characteristics. The approach that we presented has to be studied in detail to use it in practice. It is necessary to make statistically reliable selection of the companies in which it is necessary to conduct research. Such research is labor-consuming and rather long process, however without obtained data it is impossible to consider personnel forecasts and management strategy of personnel capacity of the region as scientifically based.

In our opinion, these and other used methods to determine the value of the labor potential have a variety of approaches to monitor indicators of qualitative characteristics of the labor force. Personnel policies and technologies used in companies, become a real tool for the implementation of the proposed development to the regional labor potential management program (Marchington & Irena Grugulis, 2011). When monitoring an important part of the analysis should be the assessment of the quality of education in institutions of vocational and higher education.

The presented new approach to the monitoring procedure based on an analysis of indicators of human resource management systems, develops and complements the existing research. In our opinion, it is necessary to focus on the approach that highlights the role of personnel policies in the region organizations in the formation of the labor potential (Hadasevich 2015). It seems reasonable to emphasize the importance of human technologies used in organizations to ensure the quality of employment, quality of working life, development of employment for domestic needs and for the regional labor market. The proposed system of indicators characterizing the state of the labor potential in the region, allows assessing for certain, but the use of expert assessments to determine the thresholds values are making a sufficient share of subjectivity. In addition, the system of performance management components does not allow assessing the quality of the labor force structurally in accordance with the National Qualifications Framework.

It is worth noting the technique for assessing the socio-organization personnel policy, developed by Russian scientists of the Higher School of Economics in order to assess the relationship of the company's development strategy and its staffing strategy (Gurkov, Zelenova & Saidov, 2009). The problem and studies are quite promising in terms of use of the developed method for the formation of human resources forecasting at the regional level and development of the program of labor potential development in the region. There can be distinguished a based system of data on the characteristics of personnel management in organizations and the relationship with the company strategy. It is interesting to include the proposed assessment methodology in a unified empirical framework - a comparative international study of personnel

management practices CRANET (Cranfield Network on Comparative Human Resource Management), conducted by Cranfield School of Management (UK) (Gurkov, Zelenova & Saidov, 2012). In the developed method the authors rely on the data used in the research approach and propose to use it as a basis for indicators characterizing the state of competences and qualifications in the region. It should be noted that this method will help to get more detailed study for use in practice. It is necessary to make a statistically significant sample of companies that need to conduct a study. Such studies are time-consuming and quite a long process, but without the data staffing forecasts and the strategy for management of human resources in the region cannot be considered science-based.

### Conclusion

It is possible to claim that carrying out periodic monitoring of labor quality is a necessary condition to achieve the balance of labor market. In the article it is proved that monitoring of a real situation should be carried out by questioning the companies of the region on a cluster basis. On the basis of monitoring the following structural components of labor potential can be measured: real competences and qualifications, physical and mental health of the population, cognitive potential, creativity, communication skills, cultural and moral level, necessity for achievement.

The drawbacks of these techniques caused the necessity to search for other approaches to identify the real level of competences and qualifications in labor market as collected data can significantly affect results of the personnel forecast. It is proved that reliability and formality of received results have to become key criteria on which it is necessary to focus the applied technique.

The crucial role of company personnel policy in labor capacity formation of the region is revealed on the basis of the importance of company personnel technologies to ensure employment quality, labor life quality, labor potential development to meet internal requirements and for the regional labor market. To formalize the results of monitoring it is offered to allocate a reasonable data system on personnel performance characteristics in the companies in its interrelation with a company strategy.

The interrelation between corporate personnel management systems and development of regional personnel potential is proved as in the companies the most effective resource of formation and development of personnel potential is concentrated and it allows reacting quickly to dynamically changing economic, technological and external political situation. It is defined that a leverage effect on career pursuing and specialist development in a modern situation is more in the sphere of competences of company HR department in which it is involved, than in an education system. The educational institutions in a new paradigm become a personnel development tool as they do not operate career of employed and potentially employed population, they serve as built-in elements, both in personal career, and in a corporate personnel management system.

During research it was offered to focus attention on performance quality improvement of human resource management of large and medium-sized

enterprises of the region to solve the problem of interaction of an education system and employers. It is necessary to develop a management strategy of labor capacity of the region with the priority direction in the field of corporate personnel management. The complex approach to a management system and labor capacity of the region is developed on the basis of forecasting personnel requirement needs. There have been defined the following aspects: principles, development goals of labor quality monitoring at the regional level, research target and object, probable practical importance of the results that can be received during monitoring. The practical importance of research results is the opportunity to apply materials, conclusions and recommendations at developing a personnel forecast, regional management program of personnel potential, in the institutions of higher and professional education to form competences and qualifications of graduates. It is offered to divide the assessment directions of company personnel policy of the region into integrated issue groups corresponding to main functional spheres of HR department: stability of personnel number; compensation policy; HR brand positions; criteria of personnel selection; system of personnel assessment and development; quality of labor agreement; innovations in personnel technologies. One of the important structural elements of monitoring of competences and qualifications is poll of graduates of professional, higher and additional education. Monitoring program development is a logical continuation of initiated research.

### Recommendations

The data of this article may be useful for scientific research and practical developments for the preparation of medium and long-term programs to develop the labor potential. The findings are the basis for the further development of methodology for monitoring of competencies and qualifications. Monitoring results may be as a quality characteristic of the labor potential in the development of socio-economic regional plans, we need them to determine the quantitative and qualitative indicators in the education system. The studies can be used in the development of training economic courses for Master's Degree students.

### Disclosure statement

No potential conflict of interest was reported by the authors.

### Notes on contributors

**Marina V. Simonova** is Associate professor of Samara State University of Economics, Samara, Russia

**Larisa A. Ilyukhina** is Associate professor of Samara State University of Economics, Samara, Russia.

**Gennadij M. Romantsev** is Dr. Sci. (Pedagogy), Professor, Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Evald F. Zeer** is Doctor of Psychological Sciences, Head of the Department of Education Psychology and Professional Development, Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Ferdinand T. Khamatnurov** is PhD, professor of Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

## References

- Alasheev, S., Drachinskaya, L. & Kadkina, I. (2002) Regional order for personnel training through labor market forecasting. *Professional education*, 4, 8-9.
- Belloc, F. (2012) Corporate governance and innovation: a survey. *Journal of Economic Surveys*, 26(5), 835–864
- Bondarenko, N. (2013) Interaction nature of Russian companies and system of higher education from the point of view of employers. Poll results of 2013, according to Levada Center. *Education Issues*, 174–182.
- Castells, M. (2010) Chapter 4. The Transformation of Work and Employment, Jobless, and Flex-Timers. In *The Rise of the Network Society*, 1, 112-121.
- Chowdhury, M. & Mukherjee, A. (2015) Labour Market Integration and Innovation: The Implications on Consumers. Manchester: The Manchester School. 256p.
- Donaghey, J., Reinecke, J., Niforou, C. & Lawson, B. (2014) From Employment Relations to Consumption Relations: Balancing Labor Governance in Global Supply Chains. *Human Resource Management. Special Issue: Balancing Employment Relations in the 21st Century*, 53(2), 229–252.
- Garipova, Z. (2003) *Efficiency of labor capacity use of the region: using the example of the Republic of Bashkortostan*: PhD Abstract. Moscow: MSU. 23p.
- Gulin, K., Shabunova, A. & Chekmareva, E. (2009) Labor capacity of the region. Vologda: ISERT RAN. 263p.
- Gurkov, I., Zelenova, O. & Saidov, Z. (2012) Mutation of HRM practices in Russia: An application of CRANET methodology. *The International Journal of Human Resource Management*, 23(7), 1289-1302.
- Gurkov, I., Zelenova, O. & Saidov. (2009) Business through Sociology Prism. *World of Russia*, 3, 132-150.
- Hadasevich, N. (2015) Labour potential of the region: theoretical and applied aspects. Novosibirsk: Sibprint. 98p.
- Hlopova, T. & Dyakovich, M. (2003) Assessment of labor capacity of the enterprise. *Sotsis*, 3, 6774-6774.
- Jacobsen, J. P. & Skillman, G. L. (2004) Labor markets and employment relationships: A comprehensive approach. Malden: Blackwell Pub. 436p.
- Junge, M., Severgnini, B. & Sørensen, A. (2015) Product-Marketing Innovation, Skills, and Firm Productivity Growth. *Review of Income and Wealth*, 1, 24-36.
- Kolosova, R. P. (1987) The Labor Capacity of the Industry. Moscow, Russia: Moscow State University. M. I. Lomonosov Moscow State University. 162p.
- Marchington, M. & Grugulis, I. (2011) Best practice human resource management: Perfect opportunity or dangerous illusion? *The International Journal of Human Resource Management*, 11(6), 1104-1124.
- Pankratov, A. S. (1988) Reproduction management of labor potential. Moscow: Moscow University Press. 156p.
- Riisgaard, L. & Hammer, N. (2011) Prospects for Labor in Global Value Chains: Labour Standards in the Cut Flower and Banana Industries. *British Journal of Industrial Relations*, 49(1), 168–190.
- Rimashevskaya, N., Bochkaryova, V., Volkova G. & Migranova, L. (2012) Quality of labor potential in the regions of Russia. *Population*, 3, 111-127.
- Scholz, R., Steiner, R. & Hansmann, R. (2004) Role of internship in higher education in environmental sciences. *Journal of Research in Science Teaching*, 41(1), 24–46-24–46.
- Simonova, M. & Panusina, O. (2015) The role of personnel strategy in the general company strategy. *The role of science in society development: collection of articles of the International scientific and practical conference*. Ufa, 92-94.
- Simonova, M., & Patutina, E. (2015) Target formation of competences and qualifications of specialists. *Collection of reports of the International remote competition of research works*, 2, 500-509.

- Van Der Heijde, C., & Van Der Heijden, B. (2006) A competence-based and multidimensional operationalization and measurement of employability. *Human Resource Management. Special Issue: Developing and Assessing Professional and Managerial Competence*, 45(3), 449–476.
- Vyalkov, I., Glukhova, E. & Martynchik, S. (2015) Monitoring model of formation of innovative competences of the personnel structure of the scientific medical organization focused on the creation of crucial technologies. Retrieved from <http://vestnik.mednet.ru/content/view/674/30/lang,ru/>
- Werquin, P. (2007) Moving Mountains: Will qualifications systems promote lifelong learning? *European Journal of Education*, 42(4), 459–484 .
- Wiley, C. (1999) A comparative analysis of certification in human resource management. *The International Journal of Human Resource Management*, 10(4), 737-762.
- Yesenina, E. (2014) Foreign management workshops of system of qualifications and competences. *Educational policy*, 1(63), 104-113.