

**MARINA MELNICHUK & ALLA VARLAMOVA**

## **QUALITY CRITERIA AS THE INNOVATIVE DEVELOPMENT VECTOR OF HIGHER EDUCATION**

### **Abstract**

The article deals with the problem of quality assessment in the field of higher education in Russia and the USA. The authors describe the solution of the problem in the modern period of reforms and globalization and the authors' analysis of the main quality assessment approaches is presented in the article.

**Key words:** higher education, quality improvement, quality criteria, quality assessment, traditional and alternative approaches

### **Introduction**

As rightfully noted by a number of authors, "... in the recent years, the idea of the education mission has been subjected to substantial revision in the Russian realities": if the dominating tendency of the 90s was that of "optionality of higher education" because the latter did not give any advantage in obtaining a high social status and material profit, in the early twenty first century the "higher education largely determines the upward move on the social ladder" like it was in the 80s (Aver`inova, Chizh, Trofimova, 2005, p. 27).

### **Development of education in Russia**

The statistical data of the education coverage from 1990 to 2014 demonstrate positive dynamics in the number of students of higher vocational institutions since 2000 amid the decrease in the total population of Russia, which may be due to the fact that starting from that period the idea of the importance of higher vocational education has been actively supported at the state level.

"The Concept of the Long-Term Socio-Economic Development of the Russian Federation until 2020" points out that "the institutional environment required for the innovative socially oriented type of development will be formed for the long term perspective in the framework of ... institutions that ensure human capital development. In the first place it concerns education ...". Moreover, as stated in this document, improving the quality of education is one of the ways to increase the national competitiveness.

Meanwhile, the results of special surveys based on the national representative sampling of the Russian population aged 16 years and older conducted by the HSE Institute for Statistical Studies and Economics of Knowledge show that 15% of respondents answering the question "What, in your opinion, is the main condition for the economic growth in Russia?" put the "development of education" only to the seventh place, "the Russian science" to the sixth (22%), while the priority was given to "the discipline, order and rule of law" (41%) and "Russia's natural resources" (35%) (Obrazovanie v tsifrakh, 2013). In 2011, the above-mentioned Institute held a sociological opinion poll to determine whether education was one of the symbols of

the national prestige. Two questions are particularly worth noticing: “What should the country primarily have to be respected by other countries?” and “What currently causes other states to respect Russia?”. The “developed education system” as an answer to both questions ranks the seventh making 2% in percentage correlation. The top ranking items are “high welfare level” (30%) and “rich natural resources” (29%) (Obrazovanie v tsifrax, 2013).

### **The quality of education in modern society**

The European Union investigated the impact of education on the economic growth. As a result, it was proved conclusively that advance in the education level increases macroeconomic performance. In particular, according to the data of the foregoing EU investigation, the annual 1% human capital increase in higher education ensures 5.9% increase in the GDP growth rate per capita. The average training period (with account for the school, BA, MD and the doctoral degree training) is permanently increasing worldwide. By this indicator the leadership belongs to Australia where the average education term is 21 years; in the G8 countries between 1950 and 2012 the average period of the human cognitive activity only in the course of primary education (from the beginning of learning until the outset of production activity) increased by about 50% (Startsev, 2013).

However, the conditions needed for the innovative socially oriented economic development are placing greater demands on the level of people’s education. Over the recent years, the international community is challenged with a problem of assessing the quality of education due to fundamental changes in views on the education management itself.

On the one hand, we are witnessing the globalization of the world economy and hence education. On the other hand, it is quite understandable that each state, including Russia, desires to have its own national competitive system of higher education. Therefore, the problem of the quality of education in modern society is viewed both at the state level and at the level of higher education institutions themselves, thereby setting the vector of development for new areas of the pedagogical theory and practice. This background has given a fresh impetus to the research in the education sphere. “International organizations such as the Organization for Economic Cooperation and Development publish a variety of expert estimations and international statistical data that affect the national policy of education reforms and corresponding legislative initiatives. At the same time their analysis yields an unbiased assessment of national processes taking into account the specifics of a particular country” (Boniusko, Semchenko, 2012, p. 14). However, the authors are quite right to point out that the political integration makes the definition of national boundaries needed for carrying out comparative studies difficult and not to be taken for granted, because earlier there existed traditional frameworks for the internal (national) and foreign (European) policies.

### **Traditional and alternative approaches as the main quality assessment tools in the higher education in the US**

What is normally understood by the quality of education? A short glossary of quality management terms for higher and secondary vocational education gives the

following definition: “The Quality of Education is well-balanced compliance of education (viewed as a result, as a process, as an educational system) with statutory needs, objectives, requirements, regulations (standards)” (Kratkii terminologicheskii slovar' v oblasti upravleniia kachestvom vysshego i srednego professional'nogo obrazovaniia, 2006, p. 6). This definition allows better understanding of the Berlin Communiqué requirements for national higher education quality assurance (QA) systems which include:

- definition of the responsibilities of universities and other institutions engaged in the educational process;
- comparable criteria and methodologies for assessing the quality of education;
- external and internal evaluation of university education programs, also with students participation;
- the system of accreditation, certification and similar procedures;
- evidence of international participation in assessment, international cooperation and international scientific and educational networks (Kommiunike Konferentsii ministrov vysshego obrazovaniia «Formirovanie obshcheevropeiskogo prostranstva vysshego obrazovaniia», 2003).

No less relevant is the issue of new forms of monitoring, assessment and certification of student`s achievements that could take into account trends towards integration into the world educational space. Solutions are closely connected with the investigation into the problem of assessing the quality of education in the higher education system with reference to the best world standards of the QA system organization. One of possible ways might be to study the USA experience. The American system of higher vocational education is focused on the development of the individuality of a future specialist; it is diversified and has its own traditions in seeking new forms of education quality assessment. In this context, a comprehensive analysis of the experience gained in ensuring the quality of the US university training, identifying its components, revealing the most valuable ideas and results of their implementation in educational practices presents not only theoretical interest but is of practical value.

The US higher school experience is also important from the point of view of its challenges also relevant for the current Russian education system, namely: cutbacks in state funding and withdrawal of the federal government from the higher education; excessive specialism in training; undue expansion of elective courses in the vocational training program; the need to enhance the state participation in the higher school sector while maintaining the autonomy of universities.

In the US system of higher education quality assessment there are traditional and alternative approaches. The traditional approach uses a three-level assessment: the educational institution level, the curriculum level and the course of study level. The traditional approach to evaluating the quality of the institution and the quality of the proposed curriculum is based on existing rankings and a certain reputation of a higher educational institution; the emphasis is placed on the peer assessment by authorized persons of a university, heads of departments or deans of faculties. It should be noted that the traditional approach to evaluating the quality of education has been used in the United States for a long time: the ranking practice was pioneered by the famous American psychologist J. Cattell (1910); later, between 1925 and 1934, quite a number of investigations on the ranking issue were

performed by R. Hughes. At present, the annual ranking of the best universities according to US News & World Reports (USNWR) takes into account the following seven assessment categories analyzed by C. Conrad and D. Gupta in the “Traditional and Emerging Approaches to Assessing the Quality of Higher Educational Institutions, Programs and Courses”:

1. Peer assessment (25%) – The prestige of the university is estimated by rectors, vice-rectors and deans of the universities that fall into the same category according to the Carnegie Classification;
2. Students (15%) – The ratio of enrolled students to applicants; the proportion of enrolled students included in top ten percent of high school graduates; average score of the results of SAT and ACT tests;
3. Higher Educational Institution (20%) – Financing; the percentage of faculties granting the highest academic degrees; the percentage of FTE faculties; students-to-faculty ratio; the percentage of BA degree groups with less than 20 students and more than 50 students;
4. Graduates and expelled students (20%) – The percentage of first-year students who applied for the six-year program (a median period of training) and the percentage of first-year students who returned after expulsion a year later to the same higher education institution (dropout rates);
5. Finance (10%) – The average costs for a FTE student (training, research, social and student services);
6. Donations (5%) – The average percentage of donations from alumni;
7. The actual and projected percentage of graduates (5%) – The difference between the actual and projected number of students on the six-year training program (Conrad & Gupta, 2006).

Therefore, the assessment of the education quality takes into account an aggregate of components making it possible to apply a system-based approach to the education system and provide a full analysis of the quality of education at a higher educational institution.

Although such an approach to the ranking of a higher educational institution has proved its effectiveness and exists for almost a century, it is still facing criticism from researchers in this field. In a joint scientific publication a number of American scientists bring up the issue of biased quality assessment using of the above criteria (Conrad, Kwako & Gislason, 2003, pp. 256-261). The following arguments are given in support of this opinion:

- experts may be misinformed about the quality of education in a given educational institution;
- alumni can overrate their university;
- the level of students who study at a university that is assigned a high rating is often overestimated;
- current teaching quality may be inconsistent with the rating assigned a couple of years ago;
- experts conducting the assessment may be influenced by the age or size of the institution;
- emphasis is placed on evaluating the curriculum of the higher education institution, rather than on compliance of the curriculum with the existing quality standard.

According to R. Harnett, M. Clark and L. Baird, these ratings hardly reflect the quality of teaching or the level of civil and social responsibility as well as the level of students' cooperation (Harnett, Clark & Baird, 1978, pp. 1310-1314). Much more criticism is expressed by C. Conrad and D. Eagan calling such ratings "game of prestige" played by universities and colleges to maintain their status and reputation, rather than to improve the quality of education (Conrad & Eagan, 1999, pp. 5-16).

In 1986, C. Conrad and R. Blackburn (Conrad & Blackburn, 1986, pp. 249-266) identified four main areas required for evaluation of the curriculum: university, students, resources and learning outcomes. Thus, it was proposed to assess the quality of learning programs taking into account the quality of the teaching staff, the quality of students' learning outcomes and the quality of material and technical resources. Moreover, each component should be considered individually to achieve more reliable evaluation results, and the curriculum must be assessed by three categories – formative assessment, summative (final) assessment and assessment of the progress in mastering the curriculum – since each type of assessment pursues its own purpose (Davidson, 2005; Rossi, Lipsey & Freeman, 2004).

The purpose of the formative assessment is to improve the quality of the learning program by providing constructive information. This type of assessment helps a new program either enter the desired level or get asserted or help the existing program to try new strategies to improve its quality. In other words, the formative assessment provides information on how to improve the quality of the program. Moreover, it helps to answer the question of how well the program meets the needs of the students and what results they have achieved compared with the students mastering the same program at another institution (Davidson, 2005).

The summative (final) assessment summarizes the effectiveness of the program based on the results obtained in the course of the program implementation or after its completion. It determines the overall quality of the program and its advantages (Wholey, Hatry & Newcomer, 2010). The summative (final) assessment answers the question of whether the program is worth the money, time and other resources spent on it and whether it justifies the costs (Day & Newburger, 2002). This type of evaluation makes it possible to inform the program sponsors and designers about the success or failure of the program and make a decision whether to continue or stop the program (Alkin, 2011).

Along with traditional approaches to the education quality assessment there emerge alternative methods aimed at elimination of the shortcomings inherent in traditional approaches. On the one hand, alternative approaches focus on the evaluation of a higher educational institution, its curriculum and a course of studying a certain discipline, and on the other hand, the assessment system is based on the learning outcomes. Therefore, an attempt was made to get away from the summative assessment in favor of the instructional process and development of the individual educational space of students.

The most popular investigation to gauge the education quality at the educational institution level is "The National Survey of Student Engagement (NSSE)" funded by the J. Howard Pugh public charity fund and conducted under the supervision of the Indiana University. The term "student engagement" is understood by American researchers as learning in the active environment where certain conditions are created for the active cooperation of all participants in the educational process.

Contrary to traditional forms of assessment (e.g. ranking) focused on the amount of resources available for training, NSSE, in turn, pays special attention to how universities engage students in the learning process. The main goal of the NSSE is getting information about the participation of students in different programs and the life of their institution. This is done to find out how students spend their time and what they receive as a result of training, all of which, in turn, is necessary to improve the quality of education. As it happens, the main criterion in assessing a higher education institution is whether it meets the collaboration principle, while the priority of the individual becomes the principal benchmark in the learning process. To be taken into account is creation of proper conditions for self-realization and development of the student. The principal feature of this type of assessment is its reliance on the learning outcomes rather than on the quantity of various resources provided by the university or a certain rating. It should be also mentioned that while the traditional forms of assessment in gathering data depend on the university administration, the NSSE surveys assess students as the main participants in the learning process.

When assessing the quality of the learning program, American experts are paying increasing attention to such forms of quality assessment that are based on indicators of the student's learning level rather than on quantitative or ranking indicators: high quality programs are those that take into account joint activities of students, teachers and administration. Alternative systems of the higher education quality assessment in the USA address the problem in question at three levels – they analyze the activities of higher education institutions, evaluate the curriculum and the course of study. In doing so they estimate the quality of teaching taking into account the development of knowledge and skills of students.

## Conclusion

Today in the US traditional systems are strongly criticized and deemed to be non-progressive at the current stage of the higher education system development, and emerging alternative systems that, from the point of view of American researchers, are innovative and deserve more intensive use. Moreover, experts in teaching techniques and methodologies emphasize that the quality is not a static indicator but a dynamic process that requires constant attention, improvement and investment. So, the US experience is particularly valuable in terms of its approach to quality which is viewed as a process, rather than a result of learning, and as such it can be interesting for the Russian system of higher education.

## References

- Alkin, M. C. (2011): *Evaluation essentials: From A to Z*. New York: The Guilford Press.
- Aver'ianov, P. F., Chizh, A. G., Trofimova, E. Iu. (2005): Problemy kachestva obrazovaniia. *Uspekhi sovremennogo estestvoznaniia*, No. 9.
- Boniushko, N. A., Semchenko, A. A. (2012): Tendentsii razvitiia sfery vysshego professional'nogo obrazovaniia v Evropeiskom Soiuze (na primere Finliandii). *Integratsiia obrazovaniia*, No. 3.
- Conrad, C. F. & Blackburn, R. T. (1986): Current views of departmental quality: An empirical examination. *Review of higher education*, 9(3).

- Conrad, C. F. & Eagan, D. J. (1999): The prestige game in American higher education. *Thought and Action*, 5(1).
- Conrad, C. F. & Gupta, D. M. (2006): Traditional and Emerging Approaches to Assessing the Quality of Higher Educational Institutions, Programs and Courses: A Perspective from the United States. University of Wisconsin-Madison. Paper presented at the 2006 International Conference on Higher Education Evaluation and Accreditation. Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT). Retrieved from [http://www.scu.edu.tw/conference/950620\\_speech](http://www.scu.edu.tw/conference/950620_speech).
- Conrad, C. F., Kwako, J. & Gislason, T. (2003): Exploration of the major types of assessment. Unpublished Manuscript, University of Wisconsin-Madison.
- Davidson, J. E. (2005): *Evaluation methodology basics: The nuts and bolts of sound Evaluation*. Thousand Oaks, CA: Sage.
- Day, J. C. & Newburger, E. C. (2002): *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-life Earnings*. Washington, D.C.: U.S. Census Bureau.
- Hartnett, R. T., Clark, M. J. & Baird, L. L. (1978): Reputational ratings of doctoral programs. *Science*, 199.
- Kommiunike Konferentsii ministrov vysshego obrazovaniia «Formirovanie obshcheevropeiskogo prostranstva vysshego obrazovaniia», Berlin 19 sentiabria 2003, *Vestnik Soveta rektorov vuzov Severo-Zapadnogo Federal'nogo okruga*. Retrieved from <http://umu.spbu.ru>.
- Koncepcija dolgosrochnogo social'no-jekonomicheskogo razvitija Rossijskoj Federacii na period do 2020 goda (2008). Retrieved from [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_90601/?frame=1](http://www.consultant.ru/document/cons_doc_LAW_90601/?frame=1).
- Kratkii terminologicheskii slovar' v oblasti upravleniia kachestvom vysshego i srednego professional'nogo obrazovaniia (proekt) (2006): St. Petersburg.
- Obrazovanie v tsifrakh: 2013: kr. stat. sb. (2013): Moskva: Natsional'nyi issledovatel'skii universitet «Vysshaia shkola ekonomiki».
- Rossi, P. H., Lipsey, M. W. & Freeman, H. E. (2004): *Evaluation: A Systematic Approach* (7<sup>th</sup> Edition). Thousand Oaks, CA: Sage.
- Startsev, A. (2013): Ekonomika znanii: prekrasnoe daleko. *Segment*, 6. Retrieved from <http://www.a-segment.ru/magazine/journal/273/>.
- Wholey, J. S., Hatry, H. P. & Newcomer, K. E. (2010): *Handbook of practical program evaluation*. San Francisco, CA: Jossey-Bass.

Marina Melnichuk  
PhD in Economics (Doctor of Science)  
PhD in Pedagogy (Candidate of Science), Professor  
Financial University under the Government of the Russian Federation  
Moscow, Russia  
mvmelnichuk@gmail.com

Alla Varlamova  
Associate Professor  
Financial University under the Government of the Russian Federation  
Moscow, Russia