

About Basic Approaches to Making Competence-Based Model of a Higher Educational Institution's Graduate

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Abstract: The article describes methodological approaches to making competence-based model of graduating student, which is based on basic educational programs in the context of his future professional activity and on the basis of profession's scientific foundation. The consumers' requirements of experts' training results, objectives and goals of model's development are revealed; effectiveness' indexes of model's functioning and competences' classification on basis of dividing into clusters (world-view, regulatory and instrumental) are proposed.

Key words: Competence-based model of graduating student • Basic educational program • Competence • Cluster

INTRODUCTION

According to latest requirements of higher education to the finite goals of higher education and to the state educational standards of higher professional education, the Sholokhov Moscow State University for Humanities develops methodical approaches to making competence-based models of graduating students (CBMGS) in the education profiles [1].

The problem of taking into account the competences, which are required for successful professional activity, at formation of educational programs is studied by both Russian [2] and foreign [3, 4, 5] researchers.

Analysis of works dedicated to the studied problem (A.A. Verbitsky [6], I.A. Zimnyaya [7], B.K. Kolomiets, A.K. Markova, J. Raven, N.A. Selezneva, A.I. Subetto, N. Khomsky, A.V. Khutorsky and others) enabled us to identify a fundamental approach to building CBMGS and modular competence-based basic educational programs (BEP), which bases on two contexts: the context of professional activity of a graduate and the context of sciences, which are the basis of certain professions.

When developing a balanced CBMGS, the necessary requirement is to identify and state the users of the

results, i.e. the groups whose requirements must be taken into account: students and attendees of BEP; employers; and social institutions including the government.

The main requirements of students and attendees of BEP are satisfaction of their own needs, personal and professional self-fulfillment and success in life. Achievement of this goal depends on formation of personal and both professional and cultural (universal) competences.

The main requirements of employers include efficient participation of a graduate in accomplishment of employment functions and job duties; display of developed universal competences, such as initiative, responsibility, communicative properties, etc. [8].

The main requirement of social institutions (government, family, professional community, local community) is defined as compliance of the graduate's activity to values, goals and standards stated or informally settled within the framework of these institutions operation.

Thus, the goal of education within the context approach can be defined as the following three categories: 1) personal success; 2) professional efficiency; 3) adequacy of social involvement.

In our research, development of CBMGS is the first stage of the BEP development in any area and attainment level.

The studied model of a higher educational institution graduate is the formalized goal of the basic educational program and in fact is a system of: 1) substantiated indexes (competences), by which we can estimate the extent of conformance of a graduate to the requirements, which the labor market, the settled social conditions for personal and professional success and the existing social institutions produce to him; 2) substantiated standard indicators (requirements to the attainment level), which characterize the minimum threshold value of competences, at which their formation degree is found satisfactory; 3) list of substantiated (valid, sufficiently accurate and reliable) measuring tools, which are used for evaluation of this competence and determination of the extent of its formation [9].

Obviously, this description of the goal in the development of CBMGS is found between the requirements of the users of the results and the program itself. The necessity to create CBMGS is determined by the fact that presently there are no precisely formulated requirements of users to the BEP results. They change in the process of time as well as depending on the specific nature of the industry or the region. However, in order to develop an adequate BEP, the high extent of certainty of requirements to the results of graduate's attainment is required [10].

Thus, CBMGS is a formalized model of users' requirements to the given results, i.e. it is formed upon the analysis of users' requirements to the results of professional education.

When developing CBMGS based on the basic educational program, we need to determine precisely and unambiguously, which faculties of a graduate need to be trained and how to detect that these faculties have achieved the minimum level, at which we can state his personal, social and professional readiness for being engaged in certain professional activity and what measurements and methods are to be used at that.

The next task to solve within the context of BEP development is conformance of the substance, forms and methods embedded in the program, to the level of the developed and approved competence-based model. In the course of programs implementation, databases are created, which contain information on the compliance of BEP results to CBMGS requirements, which is the empiric basis for revision and improvement of their performance.

In this case, performance is considered as the ability to ensure achievement of standard competence-based profile (SCBP). The performance measure is the share of graduates who have the SCBP established for this area and attainment level in the total number of students (attendees) enrolled in this course.

One of the important steps at building a competence-based model of a graduate is precise statement of used competences. According to A.A. Verbitsky, our research is based on the principle of contextual education, which includes the methodological key for developing basic elements of CBMGS.

For the purposes of our research, the operational unit of competence (or competences) is solution of a problem. Accordingly, the share of successfully solved professional problems of various difficulties, in which this competence is manifested, can be taken as the adequate measuring tool for a competence. In its turn, we associate the difficulty of a problem with the extent of its comprehensiveness, non-standard nature and uncertainty of its conditions and, for some problems (like the creative ones), the non-standard nature of its results.

The main criterion for the evaluation tool is its validity, i.e. ability to measure that particular competence, which it is dedicated to measure. Other additional universal requirements are accuracy and reliability.

The connection between competences and successful solution of problems of professional activity, social involvement and personal growth is the methodological key to developing a pool of tasks.

The ability to solve certain problems can in turn be instrumentally measured through the ability of a graduate (student, attendee) to carry out training tasks successfully, which model comprehensive solution of real problems or certain aspects of their solution.

The Sholokhov Moscow State University for the Humanities adopted classification of competences based on the Federal State Educational Standard of Higher Professional Education and divided into two groups: cultural and professional.

Cultural competences are the competences that provide for development, success in life and social adaptation of a person, which assist in solution of professional problems, problems of social involvement and personal growth regardless from any particular area of professional activity.

Professional competences are the competences, which provide for success and career advancement in a particular sphere of professional activity.

Both cultural and professional groups are divided into three clusters: related to world-view, regulatory and instrumental.

The world-view cluster includes competences, which reflect the ability of a graduate to apply scientific knowledge about the nature, humans and society in the course of his professional activity, social involvement and personal growth.

The regulatory cluster includes competences, which enable a graduate to evaluate a situation, a personality and a deed, form his own attitude from the perspective of certain social standards (legal and moral) and be guided by them in the course of his professional activity, social involvement and personal growth.

The instrumental cluster includes the competences, which reflect the ability of a graduate to use the trained skills and knowledge in the course of his professional activity, social involvement and personal growth.

At developing evaluation tools, it is necessary to take into account the fact that currently there are no universal means and methods of competence evaluation, as each competences cluster must be associated with its own tasks and methodologies of the competences implementation.

For example, it is convenient to measure the world-view cluster competences using five types of tasks, which are dedicated to reveal:

- The knowledge of facts;
- The knowledge of relations;
- The pragmatic usage (for example, for the purposes of professional activity, it is reasonable to use situation analysis and case-type tests);
- The good command of research methods in a particular area;
- The creative level (unassisted acquisition of new knowledge, new relations and new quality).

To our opinion, revelation of the extent of a graduate's standard competences formation assumes evaluation of:

- The knowledge of standards, which describe a professional activity, including the description from the perspective of universal human values;
- The ability to evaluate a situation or a deed from the perspective of social standards, to form and to substantiate one's own attitude;
- Ability to make a conclusion, to take a decision and to act in accordance with one's personally accepted standards.

For analysis of instrumental competences, it is important to determine the ability to solve standard and off-standard problems of various difficulty. At that, it is necessary to compile a pool of professional problems and then a pool of test tasks based on it. The difficulty of each task used for evaluation of the ability to solve certain professional problems must be determined empirically.

Instrumental competences can be measured using several scales (many competences will have more than one measurement). The universal indicators are:

- Intensity or completeness of an action. Using this scale, it is possible to measure the involved intensity of intention (or personal quality of a human) and the completeness of actions taken for implementation of this intention;
- The influence scale. This scale reflects the number of objects, which are influenced at solution of a certain professional problem, the range of involved resources, the extent of consequences of the taken decision, the size of the problem, which is addressed;
- The quantity of efforts, i.e. the quantity of additional efforts or time used for solution of the problem;
- The originality of the taken decision or action. Within this scale, it is evaluated whether the taken decision was creative, or, vice versa, standard and typical and the extent of the creativity or commonality.

We believe that the success of using the components of the competence-based model of a graduating student by education profiles, which we suggest, will positively influence the image of an educational institution and serve a reliable foundation for further improvement of the quality of training higher education professionals.

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