

PROFESSIONAL COMPETENCIES AND METHODS FOR THEIR FORMATION IN THE UNIVERSITY

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Abstract: The article discusses the main aspects and trends of the modernization of the education system, which, if properly organized, will, in the long run, contribute to the accumulation of intangible forms of student capital. The analysis of existing and promising ways of forming professional competencies in the university. A special place is given to the functioning of the volunteer center of the university, organized by student self-government. As well as the importance of the proper organization of this activity in the university in terms of its accounting and assessment.

Keywords: competency-based approach, lifelong education system, competence, university environment, service learning, human capital, volunteering activities, the integration of science and education.

1 Introduction

The current stage of development of a post-industrial society and knowledge economy in the world is characterized by changes in requests made by employers to specialists. The requirements that a graduate must meet today are increasing and tightening. The list of such qualities includes: 1) possessing a formed innovative thinking and high creativity; 2) the ability to use methods and means of independent organization of professional growth; 3) possession of integrated interdisciplinary knowledge; 4) the ability to work in a team on projects, interact with experts in various subject areas; 5) possession of practical experience in the development and implementation of research, design, economic, environmental and other solutions; 6) knowledge of the scientific foundations and methods of technology transfer, etc. (1)

These qualities form and reflect the student's human capital, which accumulates in the process of higher education. Therefore, the forms and methods of teaching and upbringing are of great importance in the process of formation and preparation of this type of personality. At present, economic theory has begun to pay more and more attention to the importance of the accumulation of human capital as one of the factors that constitute the productive forces of new methods of production in a changing socio-economic formation. It is believed that it is a person, a professional, who will be the determining criterion for development (cadres decide everything), and, it seems, a tendency toward the humanization and greening of science and economics has emerged. Besides, the interest of society in the development of institutions providing a high level of training is confirmed by the new institutional model of the economy, the formation of which ended with the adoption of laws on education.

It should also be noted that this goal is fully consistent with the basic provisions of the "Concept of Long-term Socio-economic Development of the Republic of Kazakhstan for the Period until 2020", the basis of which is a breakthrough in improving the global competitiveness of the economy through its transition to a new technological base, improving the quality of human capital and social environment, structural diversification of the economy. (2)

Currently, dramatic and promising changes are taking place in the education system of the Republic of Kazakhstan. The transformation of socio-economic relations is taking place gradually and the development of information technologies mainly influences this process. The trend of blurring the boundaries between national and world intellectual spaces expresses the view that the world is becoming flat (flat world) and suggests the need for constant updating of knowledge, which in the long term (including through distance learning) should ensure the transition to a system of life-long learning.

Thus, the role of man as a creator grows, because to build an innovative economy, a new type of specialist is needed, namely, a competency-based one. The benchmark is a manager engineer with both technical skills and liberal education.

With the introduction of new state educational standards, the construction of a new educational paradigm based on the "competency-based approach" has begun. This concept lies in the orientation of the formation of students not only and not only exclusively knowledge, skills that are formed from fundamental knowledge, but also the qualities of personality development, the formation of which is promoted by normative and value guidelines. It is also difficult to disagree with I.D. Frumin, who believes that "the competency-based approach is manifested as updating the content of education in response to a changing socio-economic reality".

One of the main constructs of this approach is competency. Distinguish between simple or basic (formed based on knowledge, skills, and manifested in professional activities) and key competencies (reflect the spiritual world of the individual, his motivation, are manifested in all types of activities).

Basic competencies affect the field of specific knowledge and skills, rather than personality traits and abilities. While the characteristic of key competencies, presented considering their special significance in the vocational education of the countries of the European Community, contains a personality orientation (motivation, value orientations) and its abilities applied in the process of life activity (flexibility of thinking, independence, volitional qualities).

It is worth highlighting the particular importance of the work of teachers since in this situation, the emphasis of training is shifting towards the independent work of the student. As a mentor and directing students, we believe that a modern teacher should apply new methods of presenting material, instill interest in cognitive, scientific activities. Therefore, the list of innovations at present are organizations of the educational process in the Republic of Kazakhstan, which are actively used in higher school: 1) introduction of a credit-modular system; 2) the introduction of asynchronous education; 3) the introduction of design training methods, cases, and simulators, etc.

It is also worth noting the importance of combining theory and practical application of acquired knowledge (skills development), as well as the focus of training on preparing for professional activities. This is the main difference in approaches to both education and business in Kazakhstan and the USA. In the Republic of Kazakhstan, there is a gap between theoretical developments, research, and their practical application or commercialization, in contrast to foreign countries, in particular, the USA. In this, we see a restraining effect on the processes of modernization and the reason for the inhibition of innovative development, both the university and the country.

2 Materials and Methods

2.1 Competencies Feature

The content of the main (basic) professional competencies:

- Technical professional knowledge, skills, and abilities necessary for effective implementation by graduates of their job responsibilities and workplace requirements (the ability to use technical means to achieve results).
- Technological ability to master and apply methods and particular techniques for solving problems in the selected subject area.
- Informational ability to receive and apply information necessary for solving problems in the subject area
- Positional depending on the formal status in the organizational hierarchy are divided into 1) management competencies — abilities and personal qualities that make up the totality of skills that managers need to successfully achieve projects; 2) specialist competencies — abilities and personal qualities that are necessary for specialists to complete their work.

Content of key professional competencies:

- Social (intercultural, political) ability to take responsibility, develop decisions and take part in their implementation; tolerance; manifestation of the conjugation of personal interests with the needs of production and society.
- Communicative proficiency of oral and written communication technologies in different languages, including computer programming language; ability to use the Internet system.
- Information possession of an information resource; knowledge of information technology; critical attitude to the information received.
- Special preparedness for independent, creative fulfillment of professional functions; readiness for an objective assessment of yourself and the results of your work.
- Personal (cognitive) willingness to constantly improve their educational level; the need for updating and realization of personal potential; the ability to independently acquire new knowledge and skills; desire for self-development, continuous enrichment of one's professional competence.

The innovative development of the university is a set of activities that ultimately lead to the development and implementation of new ideas and knowledge with the aim of their practical use to meet certain requests of consumers of educational services. (5, p9) That means it should be ensured by effective implementation.

Thus, the third generation of state educational standards is characterized by a new educational goal, a new educational content, a new goal setting for students and teachers, new requirements for teacher training, new technologies and teaching aids. Upon graduation, a modern graduate of a technical university should possess not only competencies that reflect his professional suitability, but also those that characterize his personal qualities in terms of interaction in society.

3 Results and Discussion

What methods of forming professional competencies and complex characteristics of a successful graduate already exist at the university, and what are the prospects for creating new forms today?

So, when describing the methods (forms, mechanisms) of the formation of the competency model of the graduate, we proceed from the fact that the formation of competencies occurs as a result of combining the acquired knowledge and skills in the process of obtaining education and upbringing (and self-education) with their practical application in interaction with others.

Research activity is associated with virtually all of the above methods and is carried out: in the process of undergraduate and industrial practice (students conduct a research at the enterprise); in project activities, depending on its type (educational project, research, information project, social project planning, and others); in the form of research work for Small Innovative

Enterprises of a university or participation in Students' Scientific Circle, etc. This indicates the key importance of this method of forming competencies.

Besides, in modern realities, there is an increase in the number of projects developed by students as a result of the establishment of intrapreneurship practices within the university. As an example, we use the Fundraising School - an annual event held as continuing education courses). This activity involves the use of creative potential, which allows you to accumulate experience and skills of entrepreneurial activity, to form critical and innovative, innovative thinking. This approach is important for society as a whole, since it allows, in the opinion of P. Drucker, the formation of an entrepreneurial society in the ongoing entrepreneurial revolution (as N. Macrae said). (6) In the case of a project involving the development of international relations, it will contribute to the development of student mobility, communicative competencies and the internationalization of education.

Ways to build competency:

- Pre-degree and industrial practice at the enterprises technical, technological, informational, social, informational;
- project activities (intrapreneurship) within the university, for example, the Fundraising School) social, communicative, informational, special, cognitive;
- research activities (research work for Small Innovative Enterprises of a university, participation in Students' Scientific Circle); communicative, informational, special;
- the practice of international exchange (various programs (TEMPUS)) social, communicative, informational, special;
- additional education (advanced training courses) communicative, cognitive, special;
- teamwork (simulators, for example, methods of group projects) positional, social, communicative, special;
- business games (cases, simulators) positional, social, informational, special;
- events of student self-governance (contests, holidays, KVN, etc.) social, special, personal;
- volunteer activity (in the form of "service learning") social, special, personal.

In teamwork and business games, usually, students get the skill of working in a group. This allows us to develop along with positional, communicative and special also social competence. As can be seen from the table, social competence is formed in the process of any of the listed activities, which indicates its importance for effective collaboration in collective work. Also, the application of the described method of organizing student activities will contribute to the cohesion of the study group. An example of the implementation of this method is the group project methodology, adapted by young Kazakh teachers as a result of participation in the international exchange program TEMPUS. (7)

We would like to dwell on the volunteer activities of students since currently there is an actualization of the use of this resource in the universities of the Republic of Kazakhstan as a result of the implementation of the main goal of the state youth policy in the Concept of long-term socio-economic development of the Republic of Kazakhstan 2020.

In foreign countries, this part of academic public life plays a large role in any successful University, as it is a factor that increases its competitiveness and the importance of various world ratings. (8) In foreign practice, such forms of training as "action learning", which consists in the assimilation of knowledge and their application, as well as "service learning", designed to contribute to a deeper development of knowledge through activities for the good, have long been used of society. Again, following Western universities, it seems to us to intensify youth volunteerism, especially since there is a good prospect due to the observed growth in the role of student self-government in the life of the university. This becomes relevant in connection with the increased attention of the government, namely the

committee on youth policy and interaction with public organizations. Participation in educational and motivational employment programs, students have the opportunity to be accepted by large companies, which in turn are interested in attracting people with an active lifestyle, on the one hand, and representatives of the volunteer community on the other. The program has already been supported by Alfa-Bank, GlobalPointFamily, Corus Consulting, etc. (9)

Besides, in the Republic of Kazakhstan, there is an objective need to activate this student resource, due to the lack of non-profit organizations (NPOs), whose activities are simultaneously aimed at the development of science and economic development. (10, p10)

According to Johns Hopkins Center for Civil Society Studies, at the end of 2010, about 140 million people in 37 countries of the world were engaged in volunteer activities (12% of the adult population of these countries). The contribution of volunteers is about 600 billion US dollars. The contribution of volunteers to the national economies of developed countries is 4-8% of GDP. (11)

In connection with the foregoing, we believe that such a way of forming general cultural and professional competencies as the functioning of voluntary organizations at a university on an official basis should soon appear in universities of the whole country. Examples of existing and operating in universities are volunteer centers. (12, p19)

This mechanism, on the one hand, contributes to the formation of moral standards and values of the young generation in the university environment and, as a consequence, to a civic position, and on the other hand, to economic growth due to work and cost savings, as well as the formation of closer ties in society and the accumulation of social and cultural capital of society.

Nevertheless, there are difficulties for both the student and the university. (17) The lack of statistics on this issue creates additional difficulties in assessing their effectiveness. However, there are difficulties such as the lack of real accounting and evaluation of the results of such activities for both the student and the university. The lack of statistics on this issue creates additional difficulties in assessing their effectiveness.

The digital scatter of estimates varies so much that it is not possible to formulate an adequate picture. Therefore, in modern conditions, it seems necessary to develop an automated software product for accounting and evaluation of volunteer activity and introduce it into the information system of the university. On the one hand, this will make it possible to have an idea (statistical data) about the activities of the university in this area, make it possible to calculate its effectiveness (social and economic effects) and evaluate the contribution of volunteering to the development of the city. On the other hand, it will be possible to consider the merits of students in the score-rating system, which will be reflected in his rating and will become a positive indicator for employers (when considering a graduate when applying for a job).

Thus, the new requests of the third generation of state educational standards are aimed at the formation in universities of highly qualified specialists, professionals with an innovative, creative type of thinking, able to quickly navigate and take active action in situations with great uncertainty. (16) The formation of such personality traits falls on the period of early adulthood (that is, the period of study at the university), so the role of the university is seen in creating the conditions for the accumulation of human capital of participants in educational and scientific processes, as well as in creating a special environment conducive to the production of innovations. (13-15)

4 Conclusion

The tasks of forming the necessary competencies require active action from all participants in the learning process: from the university environment, adaptation to new requests and market

requirements; from teachers, in particular, the development and application of new teaching methods, as well as the development of an adequate assessment of the effectiveness of their work; from students - activation of their scientific, intellectual potential. Therefore, there is a need for the proper organization of activities and the active use of technology for working with young people, which makes it possible to combine teaching and educational goals as much as possible, both in the educational process and beyond. We believe that the development of student self-government and, in particular, voluntary activity at a university at this stage is vital to maintaining the competitiveness of Kazakhstan's universities.

Thus, the mechanisms, tools, and methods created within the university for the formation of students' professional competencies and the accumulation of their human capital should consider world trends in education, internationalization processes and increase the competitiveness of the university, both in the educational services market and in the labor market. For this, the results of the use of these tools should be clear, transparent and comparable with foreign countries, and the results of educational and scientific activities of students should be oriented towards practical application.

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