

Competence Approach as a Basis of Professional Training for Higher Education Students in Conditions of Implementing New Educational Standards

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Abstract

Several centuries have passed, since the birth of traditional educational paradigm comprised of knowledge, abilities, and skills. The world has also changed, and pedagogical systems have remained mostly the same as those at the beginning of their formation, and have also become inadequate for time challenges. This is manifested in the fact that post-industrial or new information society of the 21st century facing the problem of lack of people, who would be able to work in new conditions right after the graduation. The situation when a specialist with a diploma has a finite amount of knowledge in the absence of ability to use it and replenish, becomes a deterrent to the development of the productive forces of society. This is the reason for the appeal of the European, and consequently, the Russian education to the competency building approach. Traditionally, the goals of education were determined by the set of knowledge, abilities, and skills that a graduate must possess. Today, this approach has been proven inadequate. Society needs graduates ready to run active life and capable of solving vital and professional problems occurring. This mainly depends both on received knowledge, abilities, and skills, and also on some additional qualities implying “competence” and “adequacy” that have more in common with modern education goals. To this end, in the experimental part of the study, a model for the formation of professional competencies of university students during the process of implementation of new educational standards was presented.

Keywords: Higher education; Students; New-generation standards; Competence; Model.



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1. Introduction

Different scholars have proposed their own classifications of specific professional competencies in the professional training fields. The analysis of the pedagogical literature on the problem of professional competence and the history of the formation of this concept shows all the ambiguity, poly-structural nature, and the multi-component nature of concepts like “competence” and “adequacy”, complexity of their interpretation, and the very idea of competency building approach in education - general and professional ([Kondubaeva and Ongarbaeva, 2018](#)).

In general scientific terms, “competence” can be interpreted in different aspects. So, relying on the translation of the word *competentia* (lat. -rightfulness); competence can be understood as a characteristic of the possession of knowledge that allows one to judge something, express a strong authoritative opinion, awareness, and influence in a certain area. The translation of the word *competens* (lat. - owned, appropriate, and capable) also allows us to formulate the following definition: “Competent is a knowledgeable specialist who has the right, according to his knowledge and authority, to do or decide something, to judge something; a person who has the right to resolve issues as subordinate” ([Abdrafikova et al., 2015](#)).

British psychologist Raven under the adequacy understands the specific ability necessary to perform a specific action in a specific subject area and includes highly specialized knowledge, a special kind of subject skills, ways of thinking, as well as an understanding of responsibility for actions. To be adequate means to have a set of specific competencies of different levels ([Antúnez, 2001](#)). All the specific skills and abilities to perform a certain action are also situated on the fundamental level, while the competence to organize activities of any kind: initiative, organizational abilities, communicative ability, ability to reflect, etc. are on the highest level. The most important opinion by Raven regards the statement of interests, goals, and priorities (personal and social) of each person in assessing their adequacy in this field. The components of adequacy are manifested and developed only in conditions of activity interesting for a person. Therefore, competences can be called “motivated abilities”.

In Sergeev’s opinion, competencies represent a combination of knowledge, skills, and experience; providing in its totality the ability to solve practical problems in various spheres of life and activities ([Gabdrakhmanov and Ergunova, 2017](#)).

The experience of Western experts obliges to take into account that the composition and hierarchy and even the composition of general competences can differ depending on the profession that can undergo the “effect” of the country (Anastasia *et al.*, 2017). Competencies can even change their dominant position, depending on the country and specialty (field), and they can be shifted by ranking scales.

The implementation of dynamic technology requires a new approach for the creation of monitoring and evaluation materials as well as for the formation of a new assessment culture, which involves transition from assessment of knowledge (as a dominant characteristic) to assessment of competencies.

Moreover, new control and evaluation materials should be comprehensive (by the forms of activity) and interdisciplinary, since competences whose level of formation is measured by them (Verbitsky, 2004), have signs of complexity (Auhadeeva *et al.*, 2017) and interdisciplinarity. As an example, the so-called “complex testing” used in a number of Western countries as the main form of the final (term exam) can be cited (Valiakhmetova *et al.*, 2017). Such testing usually consists of three parts: general concepts, main part, and solution of a problem.

General concepts are also a part of a complex test which includes questions aimed at revealing knowledge of basic concepts of a training course (module).

The main part requires a student to have abilities and skills of solving a large number of relatively simple tasks in the volume of the entire course (module) for a limited time (Pimenova *et al.*, 2017). To address the questions of this part, a student needs to work hard and also applying knowledge to choose right answers among the proposed alternatives.

Solving a problem is part of a complex test, in which a student, based on the acquired knowledge and skills, applies them in practice to solve a particular problem or several problems. Results of the implementation of this part of the examination task, not limited to the choice of one answer from several proposed, is also checked and evaluated by the examination board (Rimma *et al.*, 2016).

Part of the “problem-solving” is the key to the assessment of competencies, since it requires integration of theoretical and practical knowledge, skills, ability to implement both in practice, and formation of analytical (creative and critical) thinking. In this case, a student may be given a task, of the type: “Choose from the list the inefficient ways to solve problems and justify their inefficiency”.

Thus, to distinguish the notions of competence and adequacy, the objectivity and subjectivity of the conditions of professional activity were chosen. The objective conditions included constituting competences, i.e. scope of rights and duties and responsibilities of a particular specialist. Moreover, subjective conditions were comprised of adequacies, one’s professional motives, personal qualities, psycho-physiological characteristics, abilities, knowledge, and skills.

2. Research Method

Experimental work on the formation of professional competencies of students was conducted on the basis of the Kazan (Volga region) Federal University. For this purpose, a total number of 46 2nd- and 3rd- year students of the full-time study course, studying in the field of “Pedagogical Education” were recruited in the experimental work.

The experimental work was aimed at phased implementation of pedagogical conditions for the formation of professional competencies of students, stated in the research hypothesis.

The experimental work also consisted of three stages: diagnostic, formative, and control.

The purpose of the diagnostic stage of the experiment was to identify the initial level of the formation of the professional competencies of teaching students.

At this stage of the experiment, a set of various research methods was used:

- Designing and modeling the pedagogical process in the university;
- Methods of pedagogical sociology (questioning, interviewing, and method of expert review);
- Pedagogical experiment (ascertaining, forming, and control stages);
- Methods of observation, conversation, and testing; and
- Studying and analyzing the products of students’ educational activities.

Furthermore, a set of methods was selected and implemented to identify the level of professional competence of teaching students trained in the field of study i.e. “Pedagogical Education” including “Methodology for the diagnosis of student motivation” (by Rean & Yakunin, modified by Badmaeva), “Ready to work with information and information sources”, and “Comprehensive methodology to identify the level of the formation of professional competencies of teaching students”.

At the diagnostic stage of the experiment, the received indicators of the initial level of the formation of the professional competencies by teaching students were not met. Due to this fact, the forming stage of the experiment included the development and implementation of a model for the formation of professional competencies of university students in conditions of implementing new educational standards.

3. Results and Discussion

The modeling method was used as a research tool to study the process of forming the professional competences of the student as future teachers.

The methodological component of the developed model made it possible to identify key approaches and principles to the learning process that could contribute to the formation of professional competencies of teaching students. The modeling method also allowed integrating the theoretical and methodological basis of the study and its

experimental part in terms of confirming the main guidelines of the study. This model included target, substantive, procedural, and evaluation-criterial components, as well as their elements in interdependence.

The target component determined the direction of the implementation of the model and the result of the process of forming the professional competencies of students-economists.

The content component of the model also determined the semantic content of the process of preparing students and future educators in the field of education for professional activities. It reflected the principles and approaches that could ensure the formation of professional and value orientations of students in the process of teaching in the psychological and pedagogical educational space of the university.

The procedural component of the model included the pedagogical conditions of the process of forming the professional competencies of university students, contributing to the increase in the level of their professional readiness for future psychological and pedagogical activities. The evaluation-criterial component also determined the success of the implementation of the developed model and reflected the expected results on the formation of professional competencies of teaching students in the psychological and pedagogical educational space of the university.

Considering the main goal of the model developed, the formation of professional competencies of students as future educators was determined.

The following objectives could contribute to the successful implementation of this goal:

- Development of positive motivation to form professional competencies in educational and during extracurricular activities;
- Formation of value orientations of students in the educational space of the college;
- Formation of general and professional culture of students-economists;
- Development of creative thinking in students;
- Mastery and practical application of psychological, pedagogical, and professional knowledge;
- Ensuring student's self-realization in the psychological and pedagogical educational space of the college.

The methodological basis of this research was represented by competency building, system, activity, as well as axiological, acmeological, and personality-oriented approaches.

Thus, the model developed in this study was a holistic and evolving system conducive to the formation of professional competencies of students in the educational space of the university.

4. Summary

The concepts of "competence", "adequacy" and "competency building approach" are significantly broader than knowledge, abilities, and skills; since they include the direction of the individual (motivation, value orientations, etc.); their ability to overcome stereotypes; feel problems; and show discernment, flexibility of thinking, traits of character - independence, determination, volitional powers.

The competency building approach in higher education, as opposed to the concept of "mastering knowledge" (and, in fact, the amount of information) also involves students mastering skills that enable them to act effectively in the future in situations of professional, personal, and social life. Special importance is also given to skills that allow acting in new, uncertain, problematic situations for which it is impossible to obtain appropriate funds in advance. They further need to be found in the process of resolving such situations and achieve the required results.

In fact, in this approach, understanding of knowledge as an increase in the amount of objective information is contrasted with knowledge as a set of skills that allow one to act and achieve the desired results, often in uncertain and problematic situations.

Competency building approach in conditions of implementation of new educational standards also assumes not mastering by the student of separate knowledge and skills, but mastering them in a complex. Within its framework, the ultimate goal of all learning is that an individual learns these behaviors, and acquires a set of knowledge, skills, and personal characteristics that will allow one to successfully carry out activities one plans to do. Relying on the logic of present research, it is necessary that the students of the university fully master professional competencies for further self-realization in the framework of professional activity.

5. Conclusion

Academic novelty and theoretical significance of the research:

1. The content of the concept of "Professional competence of students, which is understood as an integral characteristic of the individual, manifested in the general ability and readiness for professional activity," was specified.

2. A model was developed for the formation of professional competencies of university students in the context of implementing new educational standards, which contained interrelated methodological, meaningful, activity, result, and criterial blocks.

3. The pedagogical potential of higher educational institutions in the formation of professional competence of students represented by the possibility of increasing the motivation of students due to the freedom to choose the form of education, meet psychological, pedagogical and educational needs, create a situation of success in psychological and pedagogical activity for each student; presence of favorable conditions for the formation of humanistic value orientations on the basis of the common interests of students, teachers, parents; ability to meet psychological-pedagogical interests, inclinations and needs of students due to the variety of activities; and possibility of developing communication skills on the basis of cooperation with other students, teachers and parents was also revealed.

4. A criterial research apparatus including cognitive, personal, communicative, and regulatory universal learning activities as indicators of the level of the formation of professional competences, whose main component in the context of the present model was pedagogically universal educational activities, was developed.

5. Pedagogical conditions conducive to the successful implementation of the proposed model, ensuring the adequacy of the purpose, content, methods, and results of forming the professional competencies of university students in the conditions of implementing new educational standards were also revealed and justified.

Practical significance of the research:

- The conclusions and theoretical positions contained in the study could be brought to specific methodological recommendations, whose implementation could substantially improve the quality of the activity of teachers working in the university;
- The possibilities of pedagogical interaction of the subjects of the educational process represented by students, pedagogical and parent groups in the process of forming professional competence of disciplines could be revealed and justified;
- The proposed diagnostic toolset developed in accordance with the requirements of the new educational standards of higher education contributed to the improvement of the quality of measuring the effectiveness of the process of forming the professional competence of university students;
- The results of the research could be used in conducting complex studies for further improvement of the process of forming the professional competencies of university students.

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