

Review Article

ESSENTIAL CHARACTERISTICS OF SOCIAL AND LEGAL COMPETENCE OF FUTURE ENGINEERS AT TECHNICAL UNIVERSITY

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Abstract

The article considers the problem of the formation of socio-legal competence of future engineers. For this, the basic concepts of "competence", "key competencies", "professional competence", "social competence" and "legal competence" are analyzed. Based on the analysis of various approaches to the definition of these concepts, a concept is proposed - social and legal competence. Social and legal competence is considered as an integrative personality trait of future engineers, which covers a system of social and legal knowledge and skills, constructive social attitudes, experience of legal socialization, professionally important qualities necessary for professional activities and social interaction.

**Keywords:** social and legal competence, structure, future engineer, professional competence.

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INTRODUCTION

Social and legal competence is a prerequisite for the civil formation of the individual, and a humanistic orientation, moral self-regulation of behavior in the system of "man and law", "man and law". In the concept of "social and legal competence of future engineers of a technical university", the key words are "competence", "key competencies", "professional competence", "social competence", and "legal competence".

To the structural components of competence M.I. Gavrilova and I.N. Odarich include: the tendency to control their activities; willingness and ability to learn independently; self confidence; critical thinking; willingness to solve complex issues; willingness to use innovation to achieve the goal; persistence; personal responsibility; the ability to listen to others and take into account what they hear; ability to resolve conflicts, etc. [1].

The analysis of domestic and foreign sources showed that there is no unambiguous interpretation of the term "professional competence". However, the basis of all pedagogical concepts is the idea of the need for the formation of a competent person, able to apply knowledge, skills and experience in accordance with the situation.

Comparing the ideas of classical teachers of past centuries with the ideas of modern researchers in the field of education (pedagogy, philosophy) O. A. Bazaluk proves that the concept of competence was defined by the English philosopher F. Bacon, who formulated the principle of pedagogy according to which the purpose of education is not to accumulate knowledge, and the ability to use methods for their preparation. This formulation coincides with the interpretation that is embedded in the key concept of "competency" for modern educational systems [2].

In the works of V.O. Radkevich's "core competency" is acquired not only as an educational result, but also as a life experience [3]. As the author clarifies, future specialists should be able to independently think critically, see real difficulties and find ways to overcome them rationally using modern technologies; be aware of where and how the knowledge gained can be applied; have the ability to generate new ideas, think creatively, competently work with information; to be sociable, contact in various social groups; to be able to work together in various fields, preventing conflict situations or skillfully get out of them, to work on the development of one's own morality, intellect, and cultural level [2].

The term "professional competence" in the Encyclopedia of Professional Education is interpreted as "an integral

characteristic of the business and personal qualities of a specialist, reflecting the level of knowledge, skills, experience sufficient to implement the goals of this type of activity, as well as his moral position." An analysis of the scientific literature showed that foreign researchers were most involved in the development of competency and competence problems: R. Bader, R. Collins, V.Ya. Lansher, D. Mertens, B. Oscarson, J. Raven, Simon Shaw, S. Shelton, S. Schneider and others. It should also be noted the study of the problem of the formation of competence in university students of Russian scientists: A.L. Andreeva, N.A. Banko, V.I. Bidenko, A.N. Dakhina, N.F. Dolgoplova, N.N. Dolovova, A.V. Dobudko, T.V. Dobudko, I.A. Winter, V.V. Neizhmkak, G.K. Selevko, V.V. Serikova, V.A. Slastenin, A.D. Shcherbova and others.

In the process of forming professional competence of a future engineer, the greatest relevance, according to L.V. Vasyak, they acquire didactic principles that contribute to vocational training: education and training based on productive labor; training based on the formation of practice-oriented knowledge, skills; scientific in training; systematic; connection of practice with theory; consciousness and activity of students in learning; visualization of training and the strength of mastering skills, complex skills; deepening theoretical knowledge; staged training; the optimal combination of work in workshops, laboratories, at training ranges, training devices and production. These principles are inherent in each stage of training, and should take into account innovative trends both in production and in education, determine the content, organizational forms, means and methods of training in technical universities [4]. Of scientific interest is the definition proposed by V.I. Tomakov, in which it is noted that professional competence is being formed and improved in professional activity, and the effectiveness of its implementation substantially depends on the types of theoretical, practical and psychological preparedness, personal, professional and individually-psychological qualities of a future specialist; therefore, it manifests itself in activity, and cannot be limited only to certain knowledge, skills and abilities [5].

Scientists of some European countries believe that an important step in the development of professional competence is the assessment and certification of employees, determining the level of achievement of professionalism thanks to documentary evidence of the work performed. Researchers are focused on individual tasks, given the relationship between professional traits and the work done.

In this context, the content of professional training should cover: value component as a set of value orientations for future professional activity; provide awareness and perception of the norms and rules of this activity, the culture of professional etiquette; cognitive (to form a system of professional knowledge); activity (to contribute to the formation and continuous improvement of creative methods, techniques, forms and culture of professional activity); personal (to contribute to the self-knowledge of the student as a person, to help in self-determination, self-realization and self-affirmation in educational and future professional activities).

**METHODOLOGY**

Since one of the components of socio-legal competence is social competence, our further scientific search will be aimed at determining its essence. The content of social competence, according to E. V. Pryamikova, is the person's ability to build strategies for interacting with other people in the changing social reality surrounding him. It involves equally the

development of options for interaction with others, ways to achieve goals, and understanding the essence of what is happening, anticipating the consequences of their own actions [6].

S.N. Krasnokutskaya believes that social competence is one of the significant factors that can ensure the sustainable functioning of future specialists in all areas of activity. The fact that it is a prerequisite for the student's successful activity, including the development of social knowledge, skills necessary to perform social functions, eliminating the feeling of internal discomfort and blocking the possibility of conflict with the social environment, is also obvious. Social competence allows you to optimize the emotional state, relations with society [7].

The following is an analysis of the content of the concept of "social competence" in the scientific literature (Table 1. Analysis of the content of the concept of "social competence" in the scientific literature).

**Table 1 Analysis of the content of the concept of "social competence" in scientific literature**

Researcher	The content of the concept of "social competence"
E.V. Koblyanskaya	Theoretical analysis made it possible to define social competence in the most general form as an understanding of the "I" - "society" relations, the ability to choose social guidelines and the ability to organize one's activities in accordance with these guidelines.
A. Kidron	Essential Communication Skill
W. Pfungsten and R. Hingch	Possession of cognitive, emotional and motor behaviors, which in certain situations lead to a long-term favorable correlation of positive and negative consequences.
G. Spivak and M. Charet	A set of interconnected skills in solving interpersonal problems
M. Argyle	In the concept of "social competence" combined professional and communicative competence, considering it necessary to consider their relationship.
N. N. Nagaychenko	Integrative quality of personality, which includes the necessary knowledge, experience, abilities, formed as a result of socialization and allowing a person to adapt adequately in society and effectively interact in society [8]

The results of the analysis of scientific research indicate that so far there is no clear structure of the concept of "social competence". Existing structural models of social competence have both advantages and disadvantages. They are based on knowledge and skills; on the quality of socially competent behavior; on the conditions of manifestation of social competence.

No less important for the disclosure of the structure of socio-legal competence of future skilled workers is the concept of "legal competence", which is interpreted in the works of S. A. Belicheva, G. Ya. Bush, A.A. Verbitsky, V.A. Lukova, A.M. Matyushkina, N.N. Nechaeva, M. Yu. Postalyuk, V. A. Smirnov, and others. An analysis of the literature studied allowed us to state that a certain basis has been accumulated in pedagogy for solving scientific and practical problems related to the problem of forming legal competence. But at the same time, today there is not enough research revealing the specifics of the process of forming the legal competence of social specialists; most researchers focus mainly on a certain set of knowledge and skills related to the field of law and are

understood by them as the level of legal awareness of the student, his legal activity; a complex of knowledge, ideas, value ideas that determine the choice of human behavior justified by law; ability to effectively carry out professional activities. Legal competence, its essential features (legal activity and responsibility, behavior justified by law, legal culture, civic maturity and the ability to use knowledge of laws to protect their rights, the ability to influence the socio-political situation in society), the main components (legal education, legal orientation, legal preparedness) is substantiated in the works of L. Kuzmenko, V. Smirnov, I. Romanov. They note that legal competence is a complex integrative characteristic of a person, reflecting the level of his legal awareness, a conscious perception of social and legal experience, willingness and ability to build his social and professional behavior in accordance with applicable legal norms, and the ability to moral and self-evaluate his life.

Generalized approaches to determining the content of the concept of "legal competence" are systematized in the table (Table 2).

**Table 2 Analysis of the content of the concept of "legal competence"**

Researcher	The content of the concept of "legal competence"
T.I. Shamova	The ability of a specialist to navigate in a real situation from the point of view of legislation, solve problems on the basis of existing knowledge, carry out value-based reflection
T.Parsons	Legal competence is a source of legitimation of social management, since executive and managerial roles differ. The scientist substantiated the differentiation of legal competence, its independence from tradition, experience and value obligations
V.M. Raw	Explores legal competence in the context of law enforcement, distinguishing between legal and social mechanisms of legal regulation. According to the author, the legal regulation includes, along with the norms of legal enforcement, forms of social control of organizations, non-statutory requirements, corporate norms. Legal competency characterizes the subjects of legal relations whose activities go beyond the scope of legal regulation
L.Z. Kuvandykova	Integrative professional and personal quality, characterizing the willingness to solve educational and professional problems arising in the educational situation in compliance with educational legislation
S.F. Volskaya and A.A. Zaitseva	A complex phenomenon characterized by social, special, individual and personal components, it is expressed in the presence of the teacher not only knowledge and skills in the application of certain rules of law in professional activities, but also in everyday civilian life
A.V. Korotun	The property of the individual, "based on the recognition of legal values, reflecting the willingness and ability to apply a system of legal knowledge and skills in the implementation of social and legal activities, allowing the individual to mobilize for the effective implementation of this activity

Given these approaches to the determination of social and legal competence, their common features were identified: motives, needs, attitude, personal values and qualities; social and interaction skills that make it possible to adapt, make appropriate decisions, the ability to resolve conflicts, the ability to manage one's own behavior to achieve coherence between one's needs, motives, meaning of life and the requirements of social reality. Mostly the emphasis is on knowledge, skills and behavior.

Various approaches to the disclosure of the concept of "social and legal competence" are found in the works of E.V. Moiseeva, M. Ivanova, D.M. Kastuganova, M.A. Zhukova, D.O. Donchenko.

In particular, in the study "Social and legal competence among university students" E.V. Moiseyeva considers this concept as "an integrative characteristic, manifested in the totality of knowledge, skills, experience and qualities of the personality of students, which ensures their effective professional activity, including in solving civil problems" [10]; M. Ivanova and D. M. Kastuganova note that socio-legal competence is knowledge and skills in the field of interaction with public institutions and people, and also proficiency in professional communication and behavior; M.A. Zhukova defines social and legal competence as a circle of powers, relating them to the social and legal spheres, namely to society ...; BEFORE. Donchenko believes that social and legal competence is a component of social competence and belongs to the sphere of relations between an individual and law.

The results of the analysis of the content of the concept of "social and legal competence" in the scientific literature conclude that there is a divergence of opinions regarding its perception as a phenomenon, the integrative quality of a specialist's personality, ability, experience, and the like.

Summarizing the results of the research of scientific sources and regulatory documents, we clarified the essence of the concept of "socio-legal competence of future engineers" as an

integrative quality of the personality of future engineers, which covers the system of socio-legal knowledge and skills, constructive social attitudes, experience of legal socialization, professionally important qualities necessary for the implementation of professional activities and social interaction.

## RESULTS

Important for further research is to determine the structure of socio-legal competence of future engineers. To do this, we use the research of scientists who have already considered the structure of this competency.

In the structure of socio-legal competence of students proposed by D.M. Abdurazakova identified the following structural components: cognitive (legal knowledge), motivational (legal position) and activity (social and legal experience). For the systematic formation of the social and legal competence of students, it is necessary, first of all, to cultivate respect for the law of a particular society in them, so that they accept it and, as a rule, follow it [11].

According to N.A. Garashkin, the structure of socio-legal competence includes the following components: motivational, which includes motives, goals, values of a specialist, involves the attitude to professional activity as a value, the need to develop one's socio-legal competence; desire for personal self-improvement. The functional purpose of the motivational-value component is that its formation mediates the development of other components of social and legal competence; cognitive - this is knowledge of the theoretical and methodological foundations of jurisprudence; normative legal acts; technologies of social and legal work; modern information technologies; requirements for a modern social worker; activity - behavioral, which determines the style of behavior, the choice of methods of behavior and solving practical problems, includes the conditions for the successful implementation of legal competence. This component assumes

that the specialist is ready for self-realization in legal activity, the specific results achieved in the process of its implementation, the basic qualities manifested at the behavioral level, the development of the ability to solve legal problems when interacting with the client; the reflective component is a person's tracking of the goals, process and results of his activities, as well as the self-esteem of a specialist on the basis of self-awareness and reflection, i.e., the awareness and evaluation of those internal changes that occur in him, himself as a changing personality, subject of activity and relations. Only adequate self-esteem ensures success in the development of social and legal competence. Reflection of a person as a subject of legal competence covers all its components: comprehension of one's own level of professional competence, behavior style, characteristics of the value-motivational sphere and other issues; assessment component ensures the adequacy of students' assessment of legal norms and phenomena. It is important that the learner has a certain personal and emotionally colored attitude to those regulatory values that are assimilated in the course of accumulation. This determines the transition from knowledge to persuasion. At this stage, students on the basis of knowledge gained develop the ability to give a legal assessment of various facts, to interpret specific events from the point of view of their compliance or non-compliance with legal norms [12].

In particular, P.P. Terekhov identifies three components of socio-legal competence: the cognitive component of socio-legal competence includes a certain level of legal knowledge, as well as willingness and ability to master this knowledge. 2. the procedural component of socio-legal competence implies the knowledge and abilities that are necessary for a potential legal act to realize the opportunities existing within the framework of this institutional order; the motivational component of socio-legal competence implies the presence of skills and internal attitudes necessary to supplement knowledge of the legal system and methods of solving emerging problems in the legal sphere with practical activity of the individual [13-15].

Based on the foregoing, the author has developed a structure of socio-legal competence of future engineers (Table 3. Structure of socio-legal competence).

Note that in the structure of social, legal, social and legal competence there is much in common, which gave us the opportunity to differentiate its components: value-motivational, cognitive, activity-behavioral, communicative-subjective. All of them are interconnected. For example, the value-motivational component provides for the need for the acquisition of social and legal knowledge and skills.

**Table 3 The structure of socio-legal competence of the future engineers**

The structure of social and legal competence				
professional social legal				
Abilities	Aptitude	Knowledge	Motives	Values
communicative decision conflicts collaboration in team responsible actions	forecasting their activities adequate self-esteem	social and legal	need in improvement in achieving success in positive communication self-realization	value attitude to rights, Availability constructive social installations

The cognitive component includes the acquisition of social and legal knowledge and skills, as well as the technology of their application. However, knowledge is not the only element of the cognitive component. It also contains the procedures for obtaining them, the necessary skills and abilities to work with sources of legal information: textbooks, dictionaries, reference books, legal acts with the aim of obtaining, accumulating, using information necessary for solving problems in educational and extracurricular activities; embraces the ability to independently acquire legal knowledge, to freely, constructively and creatively use them, to conduct certain logical intellectual operations; knowledge of their rights and obligations in the field of labor, criminal liability, social protection, constitutional rights and obligations; the totality of knowledge about the features and style of interaction in personal, public life, in the workplace; knowledge of the methods and techniques of self-development and self-realization. The cognitive component meets the cognitive criterion.

The ability to learn involves the formation of the individual experience of future engineers, participation in the educational process, skill, desire to organize your work to achieve a successful result; mastery of skills of self-development, introspection, self-control and self-esteem. This structural element of the formation of socio-legal competence involves: the ability of future engineers to use legal literature; participate in discussions, discussions, reasonably express and defend their opinion, draw conclusions; apply legal knowledge to explain the facts of life and to choose the option of lawful behavior in various life situations and at work; ability to work

in a group; to solving conflicts and problems; the ability to consciously and objectively analyze, control their actions and behavior, forecast their activities taking into account legal requirements and their own experience, the ability to assess the facts of reality and their actions in terms of compliance or non-compliance with legal requirements, social values, goals and objectives of self-awareness, self-esteem, self-development, perception and understanding of the position of another, readiness for responsibility for their actions.

Such a structural component as activity-behavioral directs future engineers to responsible actions, the ability to resolve conflicts, and work in a team; communicative-subjective - communicative skills, adequate self-esteem, focus on success and the like.

**CONCLUSIONS**

Social and legal competence is an integral part of the professional training of a future engineer, and its development can be successfully implemented if a synthesis of approaches of a general scientific (interdisciplinary), specifically scientific (legal) and methodological-technological levels based on conceptual the provisions of philosophy, psychology, pedagogy and law, which makes it necessary to rigor the formulation of tasks and their solutions, as It lives on a methodological basis for sound forecasting.

The problem of the formation of socio-legal competence requires the installation of qualitatively-quantitative characteristics (criteria and levels). As noted in the Encyclopedia of Vocational Education, the criteria and indicators of the quality of educational activity are understood

as a set of features, on the basis of which an assessment of the conditions, process and result of educational activity corresponding to the goal is made. The quality of education is becoming a fundamental category of state policy throughout the world, the main guideline of international education policy of UNESCO, UN, and the European Union.

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