
БІЛІМ БЕРУДЕ ИННОВАЦІЯ МЕН ДӘСТҮРЛЕР ТРАДИЦІИ И ИННОВАЦИИ В ОБРАЗОВАНИИ

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Foreign language professional-and-communicative competence in professional education of engineering students

The article considers general tendencies of the modern paradigm of higher education and the development of engineering education in Kazakhstan. It reveals the concept of foreign language professional-and-communicative competence as the basic component of professional competency of various professionals including engineering ones. The article presents the content and specificity of teaching a foreign language to engineering students which are focused on the formation of foreign language professional-and-communicative competence of future engineers.

Key words: professional training, engineering education, foreign language teaching, professionally-oriented foreign language, communicative competence, foreign language communicative competence, foreign language professional-and-communicative competence.

At the present stage of the society development there are considerable changes in various spheres of the human' life activity which also considerably affect education system. The modern education paradigm assumes the reconsideration of goals and objectives of the whole education system. New tendencies in the definition of the role and the character of the education system development have a global trend and are considered at the level of all countries of the world community.

At the current stage of the development of Kazakhstan Republic the problem of the quality improvement of professional training of specialists is considered as one of the main objectives of the higher education policy. It has led to the necessity for the modernization of higher education and the creation of a new model of the specialist possessing professional competency. The need for the competence-based approach in higher professional education is the result of social, economic and political changes occurring in the modern society. The given changes as well as the specific features of the post-industrial society require the adaptation of a specialist to varying conditions. Consequently, the importance of such universal competences as the ability to orient in labour market, readiness to consider a career in the interrelation with the education continuation and enhancement, and change an activity profile depending on changes of the development strategy of an enterprise, technologies, etc., the ability to work independently with information and make decisions is growing [1].

The changes of the educational paradigm of Kazakhstan's higher schools and its transition to new state educational standards have demanded the heightened attention to the formation of professional competency of students. The new standard calls for the working out and the realization of modern educational programs, the innovative updating of methodology and adequate to it pedagogical tools of higher professional education, including the branch of engineering sciences.

Nowadays the engineering activity is characterized by the following tendencies:

– the increase in the research content of manufactures and technologies and the computerization of all spheres of the engineering activity; this all provides the understanding of technical objects as complex systems integrated in social and cultural environment;

– the fast change of samples of equipment and technologies which a specialist is taught in engineering university to use and this, consequently, directs the training of specialists on the wide carrying over of the received knowledge, abilities, skills, social experience into other spheres of professional activity differing from the major one;

– the strengthening of the innovative component connected with research practice in the process of training a future engineer, the provision of specialists' competitiveness caused by academic mobility, creativity, communicativeness, computerization of the education process;

– the strengthening of cultural, moral and humanistic content of the engineering activity in the XXI century, the search for ecological-humanitarian sense of engineering that focuses the educational process on the interaction of its participants, the formation of new professional engineering culture of a specialist;

– the increase in the organizational-and-administrative activity field of engineers that focuses the educational process on the formation of communicative competences, providing the needs for business communication, cooperation, mutual understanding, productive work in a team.

It is necessary to underline that presently the goals of engineering education are changing. They are aimed at the development of students' abilities to actively and constantly get and use knowledge, abilities, and experience for solving arising professional problems. Now professional competency of an engineer is understood as a complex integrated unit including a wide range of components, representing a set of competences, systematized knowledge and skills, highly specialized personal qualities, ways of thinking, and also understanding of the responsibility for actions.

Since the main characteristic feature of the present stage of the education development all over the world is the requirement to integrate various constituent education goals for the achievement of a certain set of competences, experts in the field of working out national standards of higher school education in the countries of the European and the world community single out basic competences which provide the readiness of graduates of various educational institutions and specialties for the adaptation and self-realization in the conditions of the modern multilingual and multicultural society. These competences have many common components and, undoubtedly, are interdependent. One of such universal component is communicative competence.

The formation and development of communicative competence is conformable with the new requirements which are put forward by the state educational standard of Kazakhstan's higher professional education to improve the quality of training future professionals — engineers. Among these requirements there are the requirements connected with the formation and the development of students' skills directed at the realization of scientific-and-technical cooperation and expansion of international contacts which are impossible without mastering by students skills of effective communications, i.e. acquiring communicative competence.

Communicative competence is a complex polycomponential phenomenon including a number of interconnected competences providing a person with the possibility to act as a subject of the communicative activity, a dialogue. It is a kernel of the professional activity of future engineers and represents an integrative interrelation of semantic orientations, knowledge, abilities, skills, values, experience, activities set in relation to a certain circle of subjects and processes, contributing to the success of professional work.

It is possible to master communicative competence only through a search, experience, a choice, an interaction, activity estimation. When mastering communicative competence, students not only express their «I», respect the rights of «another», but also co-operate basing on the equality of positions of partners in a communication act and upon that use a wide spectrum of communicative means. In the course of the communicative competence formation the subject-matter content carries out the function of the environment in which the activity having character beyond the subject field is modeled. Hence, taking into account the features of the formation and the development of communicative competence and educational requirements of students, a specific teaching material is selected on the basis of a practical and professional orientation, social importance, the orientation at the formation and the development of communicative competences [2].

Thus, communicative competence should have a professional orientation, and it is already necessary to speak not about general communicative competence but professional-and-communicative competence which as one of the competences in a number of others defining quality of professional training represents general ability based on knowledge, experience, values which are acquired and received during education and a life, and is considered as a possibility to establish the relation between knowledge and a professional situation, that is, an as ability to find a procedure (the use of knowledge in an operation) for the solution of a certain professional problem [3].

The criteria of professional-and-communicative competence development are as follows:

- professional identification;
- formed communicative abilities as a transfer of professional, social and intercultural competences;
- methodological readiness [3].

The formation of professional-and-communicative competence of any specialist is impossible without the integration into the general system of language education of engineering students and the system of foreign language education in particular as higher educational establishments face the problem of training engineers capable to carry out professional and business dialogues not only inside their country, but also in other countries of the world in conditions of the multilingual and multicultural society, the global economy and manufactures.

In the conditions of Kazakhstan's active entrance into the world economic sphere, rapidly developing industrial and scientific contacts with foreign countries, one of the requirements to graduates of higher educational establishments is practical skills of foreign languages. Each professional with higher education should know a foreign language and be capable to carry out a communication in a foreign language in any professionally significant situations and spheres of communication [2]. Foreign language communicative competence is considered today as an obligatory component of professional skills of a specialist not only of humanitarian, but also technical profile. The given competence contributes to the successful realization of the primary goals of communication and self-realization of an individual and is expressed in the mastering of linguistic abilities, observance of specific sociocultural norms of speech behaviour [4] and helps a graduate of a higher, non-linguistic ones as well, fully realize his or her professional goals while being in a constant interaction with other people, organizing and directing their activity. Foreign language communicative competence is not only the requirement of the day, but also an obligatory condition of successful professional activity. Moreover, it is a means of self-development of the student's individuality as a future specialist, it is «a way of familiarizing with professional and universal cultures, a component of social relations and one of intelligence indicators» [5].

Thus, the formation condition of multilingual and multicultural identity of a future engineer in a professionally focused environment where another language is spoken is the acquiring of a certain level of foreign language communicative competence. Nevertheless, the carried out analysis of the basic scientific and methodological literature (I.L.Bim, N.D.Galskova, E.F.Zeyer, I.A.Zimnyaya, N.F.Koryakovtseva, E.N.Solovova, A.N.Shamov etc.) and own practical experience of teaching professionally-oriented foreign language (foreign language for special purposes) specify that the issue concerning the formation of foreign language communicative competence is insufficient for the formation of multilingual and multicultural identity of a student in the framework of modern requirements to the training of future professionals of any profile in the context of the new competence-focused educational paradigm.

The social order of the modern society to teach foreign languages not only as a means of communication, form professionally competent multilingual and multicultural identity of a graduate of a higher educational institution who is ready to carry out intercultural professional and academic communication result in the necessity to form a professional component of foreign language communicative competence of future specialists, including professionals of engineering profile. Thus, the question of the formation of foreign language professional-and-communicative competence of future higher school graduates is becoming actual.

The statement of this question was promoted by works of D.Hymes in the field of the of communicative competence analysis who defined it as internal knowledge of the situational relevance of language; the ability allowing to be a participant of the speech activity. His researches emphasize the fact that the mastery of a language assumes not only the knowledge of grammar and lexicon, but also social conditions of their use [6].

In this context we can agree with A.L.Fedorova who considers communicative competence as «the sum of language skills and knowledge of a speaker — listener about the language use in changing situations and speech conditions» [7].

I.G.Sorokina in this context meaningfully specifies the concept of «communicative competence» by the fact that «it includes an adequate set of language means and the statement organization in line with a plan and purposes of a communication, and also characteristic features of a communicative act, a situation and relations between communicators» [7].

Another fact which is worth mentioning is that scientists in their authors' definitions consider communicative competence not only from the position of language knowledge, skills, but also bring an attention to the question of their situational use that assumes and preconditions the presence of certain communication

spheres (household, educational, scientific, professional) in the context of which they become actual. Hence, communicative competence already assumes a certain orientation.

In this case it becomes necessary to refer to a number of researches where scientists consider communicative competence from the position of professional training of specialists of various subject fields. Thus, T.M.Balykhina defines communicative competence as «an ability by means of language and sociocultural knowledge to establish interpersonal communication in professional sphere, whether it is educational, scientific or industrial, and situations of human activity» [8].

It is possible to agree with V.F.Aitov who considers foreign language communicative competence as specialist's readiness and ability of a specialist who did not study a foreign language at language faculty to apply foreign language linguocultural, scientific and subject-matter knowledge for the realization of comprehensive intercultural communication in a foreign language [9].

The analysis of the given above definitions proves that communicative competence represents not only the unity of productive language and speech means but also readiness and ability to their situational actualization in various fields of activity, including business, academic and professionally-focused.

Thus, we can draw a conclusion, that a necessary component of professional competency of future specialists is foreign language professional-and-communicative competence which will allow graduates of higher schools:

- 1) to co-operate with representatives of another language and culture with taking into account professional features, national values and norms of behaviour in the conditions of globalization;
- 2) to create a positive attitude in the professionally-focused interaction in a foreign language;
- 3) to choose successfully ways of verbal and nonverbal communications which are adequate to situations of professionally-focused communication.

It in turns calls for the necessity to attract more attention to the formation of foreign language professional-and-communicative competence. The increasing requirement for engineering specialists possessing foreign language professional-and-communicative competence brings special importance to foreign language education of future professionals in the conditions of higher educational establishments and results in the need to reconsider the goals and objectives of foreign language teaching, the new selection of the foreign language education content, the determination of a teaching trajectory and principles, the working out of special methods (technologies), the working out of the relevant specialized educational and methodological literature and so on.

The activity on the introduction of new curriculums on foreign language for the development of students' foreign language professional-and-communicative competence in educational programs of engineering specialties demands the reconsideration with a support on foreign experience and with the account of domestic professional practice and theory.

Foreign language teaching should also take into consideration the following points:

1. The whole university course on foreign language should have a professionally focused character, therefore its objectives are defined by communicative and cognitive needs of specialists of a corresponding subject field.

2. The basic components of the content of the whole course on foreign language are:

- the spheres of communicative activity covering household, social, sociocultural, educational and professional spheres of communication, and also themes and situations of foreign speech activity within the specific professional spheres of communication activity;

- communication means (lexical units, grammatical forms and constructions, speech patterns and formulas, socioculturally marked linguistic units and speech clichés, scientific lexicon and professional terminology);

- texts of various character in content, genre, style, containing sociocultural, linguocultural and professional knowledge;

- skills to understand and use the whole variety of language material in oral and written speech forms in different situations, including situations of professional communication;

- skills and abilities of foreign oral and written communication in accordance with the activity fields of a future specialist.

3. From the methodological viewpoint, it is advisable to develop all speech activity skills in the interrelated way, teach linguistic phenomena in the unity of their form, meaning and functional significance on the basis of spiral progression principle, use authentic texts and provide authenticity in students' educational and speech work.

4. The language material is considered as the realization method of a definite type of speech activity and uses functional-and-communicative approach when selected.

Summarizing the aforesaid, we can tell, that in modern conditions of globalization and transformation of labour market into international one, professional competency of engineers is presented by not only highly specialized technical knowledge and abilities, but also a number of «non-traditional» qualities for engineering education and competences of social and humanitarian character such as foreign language professional-communicative competence. In this case the approach to professional training of specialists, oriented, first of all, on the development of only professional qualities and considering a person from the point of view of operational-and-technical «suitability» to perform this or that activity instead of seeing him as a constantly developing individual with certain valuable experience, ethical attitudes and dialogue models is not actual today and demands thorough reconsideration.

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Б.А.Жетписбаева, Ж.Г.Шайхызада

Инженерлік мамандық бойынша оқытын студенттерді кәсіби дайындаудың шетелдік кәсіби-коммуникативті құзырлығы

Мақалада жоғары білім берудегі қазіргі таңдағы парадигманың жалпы тенденциялары және Қазақстандағы инженерлік білім берудің дамуы қарастырылған. Әр түрлі салалы мамандық компетенциясының, сонымен қатар инженерлік бейінің негізгі компоненті болып табылатын, шетелдік кәсіби-коммуникативті компетенцияның ұғымы анықталды. Болашақ инженер-мамандарының шетелдік кәсіби-коммуникативті компетенциясын қалыптастыруға бағытталған инженерлік мамандықтар студенттерін шетел тілін оқытудың мазмұны мен ерекшелігі берілген.

Б.А.Жетписбаева, Ж.Г.Шайхызада

Иноязычная профессионально-коммуникативная компетенция в профессиональной подготовке студентов инженерных специальностей

В статье рассматриваются общие тенденции современной парадигмы высшего образования и развитие инженерного образования в Казахстане. Раскрывается понятие иноязычной профессионально-коммуникативной компетенции, которая является основным компонентом профессиональной компетентности специалистов различного профиля, в том числе инженерного. Представлены содержание и специфика обучения иностранному языку студентов инженерных специальностей, направленных на формирование иноязычной профессионально-коммуникативной компетенции будущих специалистов-инженеров.

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