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Professional Culture of the Specialist of the Future

**ORGANIZATIONAL-PEDAGOGICAL CONDITIONS FOR
LANGUAGE TRAINING OF FOREIGN STUDENTS OF
TECHNICAL DISCIPLINES**

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Abstract

Kazan National Research Technical University named after A.N.Tupolev-KAI focuses on different aspects of teaching and learning English for specific purposes in real situations. According to the last questionnaire survey, 43% of students from non-CIS states and 71% of students from CIS states would like to work in Russia. For this reason our research considers the issues related to the multicultural education in Russia. The review of the research in the area of forming a linguistic personality of a foreign student in the conditions of multicultural environment enabled us to identify: firstly, the strategy of coherent speech development in the context of integrated studying of different languages and secondly, reveal the conditions of exposing a person to a new language that is sociocultural conditions. And finally, we were able to have a close look at the stages of speech production. Nowadays the issue of multicultural education is becoming increasingly important in the context of massive global migration as well as the growing number of foreign students wishing to obtain a higher education in Russia.

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Key words: Coherent speech, dialogue of cultures, language training, multiethnic and multisocial approach, matrix of core problems, sociocultural conditions.



1. Introduction

Over the last years Russia has seen an increasing number of migrant students and foreign students who apart from the Russian language (which is a foreign language for them) also study other languages, for example, English for acquiring engineering and technical specialities. This is the case in Kazan National Research Technical University named after A.N.Tupolev-KAI. It is necessary to point out that the number of foreign students is growing annually and at the moment amounts to 550 people. 85% of the total number of foreign students study at Technical Institutes (subdivisions of the university) such as Institute for Aviation, Institute of Land Transportation and Power Engineering, Institute of Radio Electronics and Telecommunications and others, whereas the rest 15% chose humanities as their major. If we trace the dynamics of admissions, we will obtain the following data: in 2015 there were 79 foreign students, in 2016 - 102 students, in 2017 – 120 students. Teaching the Russian and English languages for technical specialities at our university has changed the attitude of virtually all members of the faculty staff towards a foreign language. For instance, many teachers of a foreign language found themselves to be unprepared to the new challenges. Thus there emerged the necessity of review of their teaching methods which are to be based not only on their own cultural preferences but also on the culture of a language being taught. It has become obvious that it is impossible to teach a foreign language solely through providing authentic written and oral texts without their adequate interpretation. It is essential to keep in mind that only raising awareness of cross-cultural differences will enable teachers to identify their own and foreign perception of the learning material and determine why there is occasional misinterpretation of language forms and language phenomena.

2. Problem Statement

Literature review (Almazova, Khalyapina & Popova, 2017; Almazova, Eremin, & Rubtsova, 2016; Chernyavskaya, 2016; 2017; Davydov & Suprunova, 2003; Desheriyev & Protchenko, 1972; Egorychev et al., 2014; Gabdulkhakov, 2010; Gabdulkhakov, Kusainov, & Kalimullin, 2016; Galskova, 2000; Karaulov, 1987; Khalyapina, 2017, Kogan, Khalyapina, & Popova, 2017; Maslennikova, Ugarova, Shamsutdinova, Fisina, & Shigapova, 2012; Meyer et al., 2008; Popova, Almazova, Khalyapina & Tret'jakova, 2017; Prigozhin, 2007; Taichinov, 1999; Zakirova, 2007; Zalevskya, 1996; Zhinkin, 1964; Zimn'aya, 1989) shows that the content of organizational and pedagogical conditions of foreign students' language and speech preparation are to include the following concepts:

- components of education (a student and an engineer, society and university, knowledge and experience etc.);
- components of engineering education (knowledge, theories, the content of education, subjects, research directions);
- theory of coherent speech development in the context of integrated studying of different languages, language practice (learning process and its volume, forms, and technology);
- typological characteristics of engineering education (local, regional, interregional, subject-oriented, interdisciplinary, global, specific).

Such an approach is conditioned by the research conducted both in the Russian Federation and abroad.

3. Research Questions

The analysis of the data provided by Office of International Affairs and Foreign Languages Department of KNRTU-KAI (Kazan National Research Technical University-KAI named after A.N.Tupolev) and questionnaire surveys of head masters conducted in the period of 2015-2017 suggest that foreign students having a good command of an appropriate subject lack language and speech competences. According to the last questionnaire survey, 43% of students from non-CIS states and 71% of students from CIS states would like to work in Russia. Thus the necessity of new organizational and pedagogical conditions of foreign students' preparation arises. The conditions are to preserve the traditional fundamental study of a subject as well as to provide necessary practical language and speech preparedness of foreign students for work in Russia.

4. Purpose of the Study

The goal of the research is to identify the strategy of coherent speech development in the context of integrated studying of different languages.

5. Research Methods

The following methods were used in the research:

- -methods of conversation and observation,
- -questionnaire survey,
- -methods of comparison and generalization

The surveys were based on the methodology of Prigozhin (Prigozhin, 2007). According to this methodology, we made a list of the problems of implementation of organizational and pedagogical conditions for preparation of foreign students at a baccalaureate. The experts (Russian and foreign specialists - managers of pedagogical education) were to cross out of the problems those which seemed to be insignificant or repeated, unite the problems if necessary, and highlight the most significant problems out the transformed list. The main problems of development and implementation of organizational and pedagogical conditions of foreign students' language and speech preparation at university were identified after completing the «element-free diagram» with the help of the method of paired comparison. Thus we have developed the matrix of core problems.

We have come to the conclusion that as a result of organizational diagnostics we can make the list which, as a rule, consists of several dozens of problems. Then the question arises: how to identify the main problems among them, as well as assess and order them?

Can we rely on the criterion of significance? What can we do if there is a great deal of significant problems?

The answer to these questions lies in scientific assessment of a problems' list using the methodology developed by Professor Prigozhin which suggests the following algorithm of actions:

1. Read the list of problems carefully.
2. Cross out those problems which appear to be insignificant or repeated if stated differently.

3. Unite (aggregate) the problems if necessary.
4. Extract the most significant problems from the transformed list.
5. Using the method of paired comparison to identify the main problem amongst others after an empty space is completed by the below-mentioned methodology:

A. Type in the number of problems recognized as the most significant ones into “heading” and “right-handed footnote”.

B. Compare pairwise each problem of a horizontal row with that of a vertical row, according to the criterion of interaction. In other words, by comparing each pair of problems we are to answer the following questions:

- • Which one of these two aggravates or causes the other one?
- • Which one’s solution can diffuse and make more manageable the solution of the other one?

If a problem from the vertical row causes and aggravates a problem from the horizontal row, we put a horizontal arrow from the left to the right and up in the block of their intersection. If the interconnection was reverse, we put the arrow conversely. In the case when there is no obvious interconnection between two problems, we put 0.

C. When any problems on the list disappeared, we wrote them up without inserting them in the “special empty space”.

Processing of the received data by experts enabled to arrange the spaces according to their understanding of the most significant problems of organization and interconnection among them.

As a result of processing the empty spaces filled in by each of the experts, the four types of problems have been identified:

- 1) core problems which are the ones that cause or aggravate other problems;
- 2) nodular problems which are dependent on some other problems, but simultaneously causing or aggravating other problems;
- 3) resulting problems which are the consequence of other problems;
- 4) autonomous problems which are quite significant but in no way connected with other problems.

6. Findings

The results were obtained in the following way. Firstly, we filled in the numbers of the problem regarded as the most significant one into spaces “heading” and “right-handed footnote”, secondly, we compared each problem of the horizontal row with each one from the vertical row (according to the criterion of interaction). In other words, comparing each pair of problems we answered the following questions: Which one of the two seriously aggravates or causes the other one? Which one’s solution can diffuse and make more manageable the solution of the other one?

If a problem from the vertical row causes and aggravates a problem from the horizontal row, we put a horizontal arrow from the left to the right and up in the block of their intersection. If the interconnection was reverse, we put the arrow conversely. In the case when there is no obvious interconnection between two problems, we put 0. When any problems on the list disappeared, we wrote them up without inserting them in the “special empty space”.

Processing of the received data by experts and consultants enabled to arrange the spaces according to their understanding of the most significant problems of organization of pedagogical education within the framework of a baccalaureate.

As a result of processing “special empty spaces” filled in by every expert, the four types of problems have been identified:

- 1) core problems which are the ones that cause or aggravate other problems;
- 2) nodular problems which are dependent on some other problems, but simultaneously causing or aggravating other problems;
- 3) resulting problems which are the consequence of other problems;
- 4) autonomous problems which are quite significant but in no way connected with other problems (see Table 01).

The sign of «+» was used for the problems which were outstanding in the period of 2015-2017, the sign of «-» denoted the problems which are the case but cannot be referred to as core, nodular, resulting, or autonomous ones. The sign of «+» indicates positive aspects in a problem solution, whereas the sign of «-» shows the predominance of negative aspects in a problem solution.

Table 01. The core problems matrix of development and implementation of organizational and educational conditions in language and speech preparation of foreign students.

Types Of problems	Typical problems connected with
Core problems	Preparation of foreign students for work as an engineer in Russia
	Organization of interconnection of the course study, self-study, study of a subject
	Interdisciplinary character of the education content
	Coherent speech development on the basis of studying and consideration of cognitive interests and professional needs of foreign students - prospective engineers
Nodular problems	Implementation of social and educational functions of engineering at the university: acmeological, diagnostic, compensatory, innovative, prognostic, specialized, consulting, consultative
	Multi-functionality, dynamism, forward-looking developmental character of foreign students in relation to objects and subjects of their future professional activity – plants, project and research centers, colleagues
	Openness of the professional retraining system, its end-term orientation connected with the solution of burning professional issues, flexibility being identified by the possibility of consideration of objective needs of prospective engineers in their professional and personal development
Resulting problems	Correlation of professional retraining with the three objects (subjects): a personality, educational process (educational programs), organizational structure of additional education
	Acquisition of new knowledge, language skills, competencies necessary for executing tasks (educational tasks) which are different from those for completion of which a student was admitted to the university
	Enabling students to acquire a new professional qualification (depending on the compliance of the basic education with the course of retraining)
	Availability of forward-looking preparation of foreign students according to the new prospective (innovative) trends of education which is to become the basis for practical activity by the new profile – an engineer

Autonomous problems	Function of the thesis: it is to become an integral part of educational process and from the means of control and assessment of learning activity and turn into a means of cognitive activity stimulation and development of research ability of foreign students, and a means of real involvement into the process of knowledge and skills acquisition and further practical implementation at their professional activities
	Absence of professional retraining standard, curricula, transitional modules, educational programs, online courses necessary for professional retraining of foreign students for work as an engineer

7. Conclusion

The research shows that the core problems of foreign students preparation include: the preparation of students for work as an engineer, organization of interconnection of the course study, connection of self-study with a study of a subject, interdisciplinary character of the education content, coherent speech development in the context of integrated studying of different languages, language practice on the basis of studying and consideration of cognitive interests and professional needs of foreign students - prospective engineers.

Nodular problems include implementation of social and educational functions of pedagogical education at the university (acmeological, diagnostic, compensatory, innovative, prognostic, specialized, consulting, consultative), multi-functionality, dynamism, forward-looking character of foreign students' development in relation to objects and subjects of their future professional activity - plants, project and research centers, colleagues; openness of the professional retraining system, its end-term orientation to the solution of burning professional issues, flexibility identified by consideration of objective needs of prospective engineers in their professional and personal development.

For this reason curricula, transitional modules and educational programs of simultaneous professional retraining require thorough consideration.

Recommendations. It is obvious that a pace at which a new language is acquired depends on the creation of maximally favourable conditions. In our case when foreign students are in the linguistic environment there exist all essential components for successful acquisition of the second language. That is there are incentives for using the language as a means of communication and later on for teaching some speciality to them. Students are frequently unaware of their emerging ability to acquire a foreign language and, what is particularly valuable, they have a free access to a language and culture of another people. For the above-mentioned reasons sociocultural issues have become the focus of special attention of psycholinguists and methodists (Galskova, 2000; Desheriyev, 1972; Zhinkin, 1964; Zalevskaya, 1996; Zimm'aya, 1989; Kharaulov, 1987). These issues normally include a consistent sociocultural context of teaching a language which consists of various categories which surely take into account what unites and differentiates the cultures of peoples in question. Moreover, a significant role is played by the factor how far students live from a country of a target language as well as the established social attitude of the host country to other nationalities and countries, and to other systems of cultural and religious relationships.

It is of importance to note that knowledge of a language and practical command of it require different psychological requisites and various neural mechanisms. Theoretical and practical language acquisition are to be inextricably linked in the setting of a university, in our case a nonlinguistic one (Zakirova, 2007).

Detailed consideration of development of oral activity is well-observed in the works of Professor Gabdulkhakov (2010) in which he emphasizes that development of coherent speech is to be based on the mechanism of speech production which includes the following stages: 1) motive; 2) general concept; 3) internal pattern (structure) of utterance; 4) grammar-lexical and phonetic representation. Contemporary pedagogical technology as a teaching model, in Professor Gabdulkhakov's opinion, is to include the following technological scheme:

- creation of situations by collective action of the whole learners' group which require to use various speech units;
- collective rules deduction of speech units usage;
- selection, classification and activation of speech material which consists of speech units;
- creation of situations which require independent construction of coherent utterances.

The present technology is incompatible with the still common methodology which represents a system of instructions for teachers and regards students as the passive object for influence (Davydov & Suprunova, 2003).

Our research review on formation of the linguistic personality in the multicultural environment enabled us to determine the strategy of development of coherent speech in the framework of integrated study of different languages. We believe that the main objective of education is not to be connected with enculturation of foreign students, and introduction of Russian students to the Russian culture but it is to be connected with formation of mechanism of a personality's ever-evolving cultural identity. Therefore it is essential to pay attention to the main three components of a personality formation model of the subject of dialogue of cultures.

- **The first component** is the stages of acquisition of a foreign language culture which include: a) ethnocentrism, б) cultural identity, в) dialogue of cultures. These stages show dynamics and development of teaching culture of a target language, people, country.
- **The second component** is the principle of cultural variation, according to which the selection of language material, ethnocultural and sociocultural material is to be made.
- **The third component** is learners' self-perception of another culture under the influence of a number of factors of psychological, linguistic, and social character.

Thus having obtained the appropriate education and adequate preparation by the means of various languages and cultures, students turn from thought and understanding to vigorous activity (Gabdulkhakov, 2010).

In view of the above we assume that further tendency of our research development is to be considered from the perspective of process analysis related to comprehension of multicultural world with its multicultural education. We strongly believe that multicultural education cannot exist simply as a complex system of numerous cultures. It is to meet all the requirements presented in the scheme of formation of a linguistic personality of a foreign student, by which we imply special organization of learning and cognitive activity, creative activity as well as intellectual and moral education.

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