THEORETICAL ASPECTS OF BILINGUAL EDUCATION OF FOREIGN STUDENTS IN RUSSIA

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This article represents the theoretical aspects of bilingual teaching of foreign students (by the example of physics), develops and specifies the concept of objective professional competence of foreign students, defines the didactic conditions of bilingual teaching effectiveness, establishes the didactic model of the bilingual teaching process.

Key words: bilingual teaching, bilingual objective professional competence, motivation of foreign students, bilingual study-guide, bilingual teacher, didactic conditions.

The internationalization of education is a characteristic trait of the development of education in the world in the late 20th — early 21st centuries, since the processes of political and economic integration have intensified, global telecommunication systems have progressed and a worldwide "web" has formed due to the immense expansion of Internet use, all of which has contributed to broadening the existing information space. The bilateral agreements between governments about cooperation in the sphere of education, science and culture, intercollegiate arrangements concerning student exchange have also notably worked towards the internationalization of education. And the increase of the percentage of foreign students in the colleges and universities of Russia creates a beneficial environment for its acceleration in our country as well.

When educating foreign students in a sociocultural environment that is not native to them in a language that is not native to them either, the main problem arising for the pedagogue is: how to teach the students and how to make the students learn. In the recent years Russian and international scholars alike have been studying the theory of education in a foreign language [1—6]. When learning a subject in a foreign language, the latter serves as a resource of acquiring activity, therefore it is impossible to limit the teaching to the approach from only the position of language-teaching methodologies, especially when it comes to educating in Russian as a foreign language.

There are no conventional classifications of the methods of teaching foreign students in the Russian didactics, leading to the search for new education techniques that would permit the achievement of high levels of professional competence in the students. One of the breakthrough techniques that holds a leading place internationally due to the current geopolitical situation (mass immigration) is bilingual education, based on the idea of using a foreign language as an instrument for acquiring specific knowledge, and not just as a means of everyday communication. As it is known, the term "bilingual education" refers to learning specific subjects in two languages, one native and one foreign. It supposes interaction between the educators and students in the subject learning process, by which a synthesis of competences is achieved (subject, language and intercultural competence), providing a high level of proficiency in a foreign language and a deep apprehension of the subject contents by the students [1; 5].

In bilingual education of foreign students in Russia it is appropriate to use a mediator language, English, as the "native" language, considering the diversity of the students and the fact that English is widely accepted as the global language of communication.

Keeping in mind that the strategic goal of bilingual education of foreign students is to achieve its effectiveness, which in turn is defined by the formation of bilingual professional competence in the students, based on the theoretical analysis of various approaches [2; 4] and extending them to a certain extent, we have created the structure of bilingual professional competence of foreign students and stated the general characteristics of each component (Figure 1).

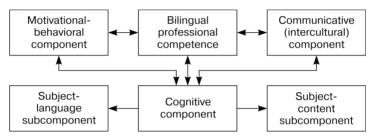


Fig. 1. The structural composition of bilingual profession competence in foreign students

Presented in Figure 1 are the defining characteristics of each of the components of bilingual professional competence based on their integrative connections, these were derived particularly in the process of teaching physics to foreign students.

The cognitive component is defined by the level of knowledge within the taught subject (physics) and is demonstrated in the knowledge and use of the conceptual physics apparatus, language of physics, physics terminology; it is expressed in the understanding of the essence of physical phenomena and laws, in the ability to logically organize the studied material and implement theoretical developments to solve practical physical problems and execute laboratory work. This component contains the subject-language and the subject-content subcomponents.

The subject-language subcomponent is characterized by the language and speech competence of foreign students both in the mediator language and Russian, that can include the knowledge of the physical terminological minimum, language clichés typical for the language of physics; individual work with the bilingual study-guide; description and explanation of physical laws and phenomena, introduction of concepts, the ability to give definitions and comment on the solution of a problem in two languages, correctly perceiving symbols used in physics and working with graphic material.

The subject-content subcomponent is determined by the level of physics knowledge, the development of physics thinking, and mastery of physics skills and experiences of foreign students in two languages, by the ability to use conceptual scientific physics apparatus, and it reflects the originality of the subject studied in bilingual conditions.

The motivational-behavioral component is defined by the goals and the needs of foreign students, it stimulates the creative show of interest towards future professions. The internal motivation of students is characterized by their highly active subject apprehension activity that significantly rises with the absence of a language barrier, when the questions that are posed in the course of the education are not only understood by

the students, but internally accepted, which in the opinion of S.L. Rubinstein is the most important factor for the positive motivation of students in the learning process.

The communicative component includes the foreign students' ability to maintain communication within the subject sphere, i.e. clearly formulating thoughts, arguing and analyzing the received results in various educational monocultures, constructing evidence, voicing opinions, organizing and upholding a dialogue not only in the mediator language, but in Russian as well in the process of bilingual education. In this manner the possibility of effective integration and adaptation to the conditions of the global education community is realized. The intercultural component is characterized by the ability of foreign students for constructive social cooperation in a multicultural environment, their knowledge of the cultural and historical facts in the sphere of physics; it is also displayed in their aptitude to working and interacting with the educator and one another, in their knowledge of the history of physics and Russia, biographies of renowned Russian physicists and their contribution to global science.

In order to achieve the effective formation of bilingual professional competence in foreign students the issue appears of defining and realizing those didactic conditions of the education of foreign students that will allow them to employ the received knowledge in their professional activities.

Therefore when constructing a bilingual approach to the organization of cognitive and practical activities of foreign students we started by creating the fundamental, in our view, didactic conditions essential for the effective teaching of physics, including:

providing personal professional preparation of the bilingual educator to project and implement bilingual teaching, the educator must have a very high proficiency in English, and a high level of professional competence in the subject field, the taught and learnt courses, and also possess such personality traits as the ability to approach the learning process creatively, the strive to implement innovative education techniques to achieve the success of the education received by the foreign students and improve the status of Russian education in the international educational community.

Studying the specifics of the formation of motivation in students not fluent in Russian, having a basic grasp of physics and combined into homogenous groups (based on the knowledge of the mediator language), considering their readiness to learn Russian in connection with understanding the status and availability of education in Russia, their sense of duty, interest in studies, and strive to be integrated into the international educational community; and also learning the causes of the difficulties facing educators and students during bilingual education, in connection with the slow adaptation of new techniques by the educators and the psychological barriers that emerge when educating students in a non-native environment.

Development and implementation of the didactic model of bilingual education that reflects the goal, tasks, principles, features of the content, the specific learning activities of bilingual educators and foreign students, and also the forms and methods of the model's realization.

Development of bilingual study-guides that provide a sufficient understanding of the essence and content of the course studied in two languages, reflecting the cognitive,

systematic and self-educational aspects of the study-guide as a learning tool, didactically realized into the real educational process.

Considering the given didactic conditions a didactic model of the process of bilingual education of physics to foreign students was created (Fig. 2).

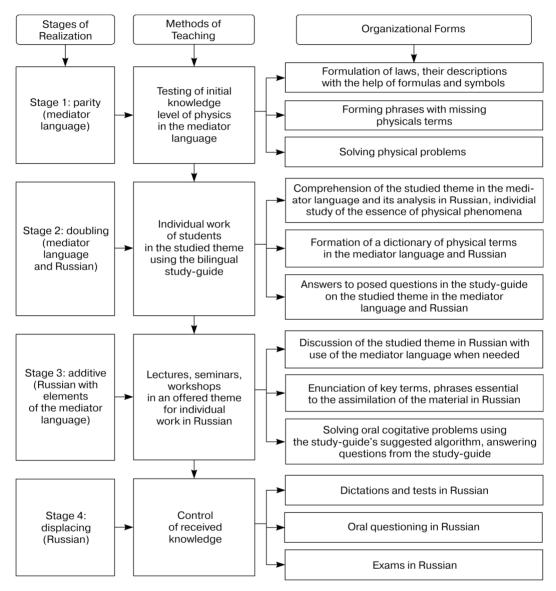


Fig. 2. Didactic model of the process of bilingual teaching of physics to foreign students

Integrated in the suggested model are various degrees of the use of two languages at different stages of the learning process, named in relation to already developed models of bilingual education [5]: parity, doubling, additive and displacing. The developed model realizes the principle of directing the bilingual education in learning physics, using two languages as learning, self-learning and self-developing tools in the process of mas-

tering physics, the unity of cognitive and speech activities in Russian with the support of a foreign language (mediator language), the integration of language and subject content in two languages, the widening of the subject-content component, the formation of physics knowledge and the development of language and speech skills in the subject area.

The conducted theoretical study gives evidence to conclude, that the formation of professional competence of foreign students will be realized at a higher level with a bilingual approach to education if the didactic conditions in which the educational process takes place are taken into consideration and realized.

REFERENCES

- [1] Салехова Л.Л. Дидактическая модель билингвального обучения математике в высшей педагогической школе: Автореф. дисс. ... докт. пед. наук. Казань, 2007.
- [2] Сигуан М., Макки У.Ф. Образование и двуязычие. М.: Педагогика, 1990.
- [3] Сурыгин А.И. Педагогическое проектирование системы предвузовской подготовки иностранных студентов. СПб.: Златоуст, 2008.
- [4] *Певзнер М.Н., Ширин А.Г.* Билингвальное образование в контексте мирового опыта (на примере Германии). Новгород: НовГУ им. Ярослава Мудрого, 1999.
- [5] Ширин А.Г. Билингвальное образование в отечественной и зарубежной педагогике: Автореф. дис. ... докт. пед. наук. Великий Новгород, 2007.
- [6] *Jacobson R.* Allocating two languages as a key feature of a bilingual methodology // O. Garcia O, Baker C. (Eds.). Policy and practice in bilingual education: Extending the foundations. Clevedon, Avon, UK: Multilingual Matters, 1995. P. 166—175.

ТЕОРЕТИЧЕСКИЕ АСПЕКТЫ БИЛИНГВАЛЬНОГО ОБУЧЕНИЯ ИНОСТРАННЫХ СТУДЕНТОВ В РОССИИ

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В статье представлены теоретические аспекты билингвального обучения иностранных студентов (на примере физики), раскрыто и уточнено понятие «билингвальная профессионально-предметная компетенция иностранных студентов», определены дидактические условия достижения эффективности билингвального обучения иностранных студентов, представлена дидактическая модель процесса билингвального обучения.

Ключевые слова: билигвальное обучение, билингвальная предметно-профессиональная компетенция, мотивация иностранных студентов, билингвальное учебное пособие, билингвальный педагог, дидактические условия.