

## METHODOLOGICAL FEATURES OF MULTILINGUAL EDUCATION OF FOREIGN STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION

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**Abstract.** Modern trends in the system of higher education are indicated by a new format: the expanding multicultural interaction of the subjects of the educational process. Accordingly, this sets the tasks of a different level for university teachers, since the learning process is the realization of the needs, attitudes, interests, motives of the subjects of educational activity as equal partners. The article shows that the main task of a teacher of a modern innovative university is to stimulate the intellectual and emotional activity of students, taking into account the specifics of linguistic, ethnocultural, and personal-professional characteristics of the subjects of education. The teacher, first of all, should contribute to the search for the student's own individuality and the activation of his personal and professional development. The most significant and new results, as well as their scientific novelty are determined, first of all, by the fact that the study reveals the fundamental didactic conditions for the effectiveness of multilingual education of foreign students, in connection with which a multilingual approach to teaching foreign students is considered as a way to achieve a high level of their professionalism – subject, language, and intercultural competencies.

**Keywords:** Multilingual education, Worldview, Foreign students, Multilingual picture of the world.

### 1 Introduction

The internationalization of education is one of the most characteristic features of the development of education in the world in the late 20th and early 21st centuries. Accordingly, for any country, the quality of training of foreign specialists is one of the conditions for the competitiveness of national higher education in the international market of educational services. Therefore, the training of foreign students should be focused on the formation of readiness for the development of new knowledge, 'shaping' of skills and abilities to apply this knowledge in solving specific educational problems and mastering the content of the studied disciplines. The problems that arise in teaching foreign students, especially in the first year of studies, are associated not only with the study of a non-native language, but also with the study of academic disciplines in a non-native language, when a non-native language acts both as a means of communication and as a means of educational and cognitive activity. Namely this actualizes the development of appropriate innovative language technologies for teaching foreign students.

Researchers pay attention to the globalization of all spheres of human activity and, as a result, the revision of priorities in education. In recent years, with an increase in the number of foreign students in universities, the phenomenon of "multilingualism" in the implementation of educational programs cannot be ignored by teachers when developing teaching methods.

Analyzing the works of scientists, it should be noted that most of the research is aimed at the historical aspects of the emergence of "multilingualism" in education, linguistic approaches to the formation of a multicultural personality, and studying the problems of changing the qualitative composition of students in connection with migration processes in the world. At the same time, the theoretical and practical experience accumulated by humanity can be the basis for the design and implementation of modern models of multilingual education. Despite the fact that multilingual learning is analyzed by scientists, there are problems, substantiated by research and related to teaching methods, principles for developing, and evaluating tasks in such learning.

As part of increasing the attractiveness of training areas and specialties of higher educational institutions for teaching foreign students, the task of improving programs implemented in English is being solved. Currently, universities offer different options for solving this problem: the implementation of

educational programs entirely in English or "bilingual" programs. The term "bilingual education" is interpreted as "interconnected and equivalent mastery of two languages (native and foreign), mastering native and foreign culture, development of students as a multilingual and multicultural personality [1]. Experts note that the key task of education is to develop a person's abilities and qualities that allow him to carry out professional and social activities in rapidly changing modern conditions. Bilingual and multilingual education is most often implemented in practice-oriented higher education programs with a large amount of practical training on the basis of specialized organizations. It should be noted that at present the situation in some cases is such that neither the relevant organizations nor the practitioners involved in the implementation of programs are, to a certain extent, ready for professional communication in English.

Another problem can be formulated taking into account the fact that educational programs, including "bilingual" ones [18], simultaneously teach both students for whom English is their native language and those who studied it in order to get an education in another country. Thus, it is actually talking about "multilingual" education, since two or more languages are involved in the educational process. In the future, under multilingual education, we will understand the process of familiarization with the world culture by means of several languages, while the languages used and studied by students are considered as a resource for mastering the field of professional and special knowledge.

The formation of a multilingual picture of the world among university students is a process of developing ideas about their own and foreign professional cultures, gaining experience in interacting with foreign colleagues based on verbal and non-verbal means, supplementing the sets of meanings behind a certain concept in different languages, as well as acquiring new concepts and stable speech turns, actively used in the world professional vocabulary. At the same time, the model for the formation of a multilingual picture of the world among students is focused on the development of their language training and future career self-determination in the global professional space. The structural components of the model are: target, content, technological, and productive blocks.

The main types of students' multilingual picture of the world are as follows [6, 13-15, 20]:

- Diffuse multilingual picture of the world is characterized by insufficiently clear ideas about the need for foreign languages in a professional career, a low level of motivation in learning an additional foreign language, in addition to English; lack of reflection of professional development;
- A mosaic multilingual picture of the world is a heterogeneous image in which certain criteria dominate: axiological can be quite high (the student has professional knowledge, competencies), but the prospects are at a low level of development (there are no ideas about the value of a foreign language in a professional career), respectively, the reflexive criterion is also low. Another student may have a different combination of characteristics of a multilingual picture of the world;
- A holistic multilingual picture of the world is an integral formation in the mind of the individual, including a harmonious combination of such criteria as axiological, semiotic, promising, and reflexive.

Thus, taking into account the personal characteristics of students and creating a favorable environment for multilingual communication is an important scientific and practical task in modern multilingual education.

## 2 Method

The methodological basis of the study is the provisions on the versatile and harmonious development of the individual, cultural and spatial; the paradigm of education, the conditionality of the picture of the world of the individual by its active participation in activities and communication. The theoretical basis of the study was:

- Ideas of “dialogue of cultures” and the concept of multicultural education
- Theoretical foundations of personality-oriented socio-cultural, communicative directions in pedagogy
- The theory of continuous education, the concept and model of standardization of education.

To solve the tasks of the study, in particular, the survey method was used.

## 3 Results and Discussion

The teacher has to take into account the personal characteristics of the students and to ensure the effectiveness of training, use different technologies for presenting educational information. In our opinion, when using the methodology of multilingual education, for example, in mathematics or other STEM disciplines, it is advisable to organize the educational process of foreign students taking into account the characteristics of the leading channel of information perception. As a rule, in pedagogical practice, the differentiation of students into small groups is carried out after a special analysis based on psychological observation, for example, using a diagnostic test for the dominant perceptual modality [5, 9].

Almost every teacher of a modern university has questions:

- What is the mechanism for conducting a dialogue of cultures in the learning process, if there are representatives of different cultures in the same audience?
- How to resolve ethno-cultural differences, if they appear in the educational process?
- How to maintain a favorable psychological microclimate in a group of students of different nationalities?
- What factors of personal, professional, and cultural development of students are especially important when organizing training in a multicultural educational environment of a university?
- What features should be taken into account when organizing the process of teaching students (representatives of different nationalities and ethnic cultures) and what psychological and pedagogical conditions should be created for successful educational activities, taking into account the identified features of learning?

An empirical study helped answer these questions, the main directions of which were the following aspects:

1. Studying the problems of general and, in particular, communicative training of “native” and foreign students at the university.
2. Identification of the peculiarities of teaching students - representatives of different nationalities and cultures in the university of a particular country
3. Taking into account these features, specification of the role of the teacher teaching students in the multilingual educational environment of the university.
4. Identification of the features of the multilingual (multicultural) educational environment of the university and consideration of its creative potential in educational activities.

To obtain answers to the questions posed above, we conducted a survey in three thematic groups: for teachers of a foreign language and specialized departments; foreign students; Polish and foreign students. The survey involved teachers and students of three universities in Poland. The study was conducted online using the Zoom platform and email. In total, 450 students (210

foreign students and 240 Polish students) and 114 teachers (73 teachers of foreign languages and 41 - from profiling departments) participated in the survey.

In order to identify the features of teaching students in a multilingual environment of the university, teachers were asked to answer the following questions:

What factors of personal and professional development of students in the organization of training in a multilingual educational environment of the university are especially important?

How are teaching materials used in the organization of classroom and independent work of students (in groups with foreign students) (for example, in foreign language classes), taking into account the national and cultural characteristics of students?

Do university professors consider the following drawbacks as main problems of organizing student learning in multilingual conditions:

- low level of Polish language proficiency by foreign students;
- insufficient preparation of teachers for the organization of teaching students in groups with foreign students;
- low level of English language proficiency of students;
- lack of educational and methodological material;
- insufficient consideration of the individual characteristics of students;
- unfavorable psychological microclimate in a group of students, due to their ethno-cultural characteristics?

Is it enough for a teacher working in a multinational group to know about a “foreign” culture?

The teachers were asked, based on their personal experience, to identify other problems related to the organization of the educational process in a multilingual educational environment.

As a result of the analysis of the answers, the following data were obtained, which contribute to the identification of the peculiarities of students' learning in the multilingual educational environment of the university.

The majority of teachers (91%) note that among the most important factors in the personal, professional, and cultural development of students when organizing the learning process in a multilingual educational environment of a university, there is the creation of special pedagogical conditions for realizing the creative potential of students.

Of particular importance, according to the respondents (86%), is the creation of a more favorable psychological microclimate in the learning process. The importance of a competent pedagogical dialogue, pedagogical interaction and the presence of a positive emotional culture in the group (86%) are noted. Teachers also note (100%) the need to take into account the national characteristics of a particular culture, to instill tolerance in students' communication. It is also important that the teacher accepts the ethnic culture of students (74%), the ability to manage interpersonal interaction of the subjects of the educational process, teaching students foreign language professional communication and cooperation (69%).

The majority of teachers-respondents (82%) use texts of a professional orientation, taking into account the national characteristics of students (the discipline “Foreign Language in Professional Communication”) and audio and video materials that take into account the interests, needs of students, their individual, linguistic, and cultural characteristics. Interestingly, 76% of respondents apply guidelines aimed at developing foreign language competencies in intercultural interaction.

Most of the respondents consider the low level of foreign students' knowledge of Polish (93%) and the low level of English (72%) to be the main problems in organizing the process

of teaching students in the multilingual educational conditions of the university.

In turn, for the possible optimization of the educational process in the multilingual educational environment of the university, obtaining information about the level of scientific activity, general and, in particular, communicative (language) training of international students is necessary for studying the features of the intercultural educational environment; foreign students were asked to answer questions (they were asked to arrange the questions by difficulty level from 1 to 8):

- What is the most difficult thing for you to learn?
- How, in your opinion, it is possible to overcome the arisen difficulties in training?
- Do you turn to your classmates for help?
- How would you rate your knowledge of Polish and English?
- What kind of relationship do you have with teachers and classmates?
- Do teachers provide assistance in learning?
- What types of work do you prefer (individual, group, pair, consultations with a teacher, etc.)?
- In which group would you prefer to study (with Polish students, with students of different nationalities)?
- Do you have enough educational and methodological support from teachers and fellow students?
- Do you show interest in scientific work, do you participate in conferences, olympiads, presentations, etc.?

The data obtained during the survey showed that the majority of respondents (78%) experience learning difficulties. This is especially evident when doing independent work and homework, which respondents associate with an insufficient level of knowledge of the Polish language.

When asked about the activity in the classroom, only 47% of students answered that they show a constant interest in learning in the classroom. The majority of students (92%) believe that it is necessary to strengthen additional individual consultations with teachers in the studied disciplines.

Only 49% of the respondents rate their knowledge of English as satisfactory (this assessment fully coincides with the answers of teachers).

When answering the question about the relationships that have developed with classmates and teachers, 66% of students mark them as positive, although some communication barrier still remains, while foreign students prefer to communicate with each other more. At the same time, 45% of the respondents constantly turn to classmates and teachers for help. Almost all students say that teachers always provide assistance in completing academic tasks (92%).

More than half of the students (63%) try to participate in scientific conferences, olympiads, presentations, business games; 58% prefer to study with Polish students and students of other nationalities.

When analyzing the answers, it turned out that some of the foreign students (24%) still experience difficulties in applying educational and methodological literature, evaluating it as a necessary support in the educational process. To the question "Do you like studying at the university?" 94% of respondents answered in the affirmative manner.

In parallel, a survey was conducted in groups where Polish students and students of different nationalities study together, in order to discuss issues related to the problems of organizing intercultural communication in professionally oriented education and creating a favorable psychological and pedagogical climate in the group. The students had to assess the organization of the resource and methodological support of the educational process at the university on a 100-point scale (the maximum score was 100 points). Below, there are the positions that students had to evaluate:

- Evaluation of the proposed educational and methodological material and tasks that take into account national, cultural, and linguistic characteristics in groups where students - representatives of different cultures are trained (the survey was conducted in relation to the disciplines of the humanitarian cycle).
- The possibility of learning with the help of modern distance technologies, Internet resources, etc.
- The effectiveness of teacher consultations, the use of memory algorithms, individual reference schemes that help to independently solve educational problems in classroom and extracurricular activities.
- The level of understanding of ethno-cultural differences in a group of students of different nationalities.
- Evaluation of the psychological microclimate in the group where students of different nationalities study.
- The desire to communicate with fellow students outside the classroom.
- Communicating with each other in Polish.
- Communicate with each other in English.
- The possibility of solving emerging problems of intercultural communication with fellow students together with the teacher.

After analyzing the students' answers, one should first identify the positions that were rated with the maximum number of points (average): a favorable psychological climate that provides a high level of tolerance and understanding of ethnocultural differences in groups where representatives of different nationalities study (65 points); the ability to solve emerging problems of intercultural communication (with fellow students and teachers) and the desire to communicate with fellow students outside the classroom were assessed by the same number of points (72 points). The majority of respondents rate learning with the help of modern distance technologies as satisfactory (37 points); they also are satisfied with tasks of an intercultural communicative nature, taking into account national, cultural linguistic characteristics in groups where foreign students study (42 points), memory algorithms, reference schemes that help the student to independently solve the set educational problems, are used by the majority of respondents (average score 75). It should be noted that communication in Polish received an average of 43 points; communication in English is marked by the lowest score (24).

The data obtained as a result of the survey on three types of questions made it possible to identify moments in the organization of the educational process of students in the multilingual environment of the university, which require a special approach and attention.

The analysis of the information obtained from the survey of students and teachers described above, the extensive material studied on the topic of the study, as well as our own practical experience, served as the basis for the study to identify the features of the learning process of students in the multilingual environment of the university. In the process of research work at this stage, a preliminary conclusion was made that these features are associated with a pronounced specificity in sociocultural, interethnic, psychological and pedagogical formats and require a change in the pedagogical and methodological organization of the learning process.

The studied features are formulated as follows: the learning process in the multilingual environment of the university is projected not on the regional principle (description of ethnic characteristics), but on the learning process in conditions of real relationship and interaction with representatives of other cultures: the design and implementation of the pedagogical process are based on cooperation with the environment, taking into account the emotional-value, ethno-cultural actions of students in intercultural communication.

The communicative dominant of the educational process is pedagogical dialogue as a component of intercultural multilingual interaction [1, 16]. In the conditions of a multilingual educational environment of a university, it is

advisable to consider pedagogical dialogue as an implemented productive pedagogical cooperation of all subjects of the educational process: the educational function of a teacher in a multicultural environment of a university, on the one hand, and, on the other hand, the response attitude of students to their environment as a carrier of specific ethnocultural attitudes, expressed in readiness for co-creation and interest in learning.

According to the logic of the study, the notion of "attitude", which is interpreted from the standpoint of a multilingual educational environment, is of particular interest. More specifically, in this context, we are talking about an interethnic attitude: an attitude regarding a tolerant, respectful attitude towards people belonging to "foreign" ethnic groups and brought up on the samples and values of a different culture. This concept was studied quite deeply earlier in the works of a number of scientists.

At the origins of the concept of "attitude", there is the German scientist L. Lange. The concept introduced by him into scientific circulation became the basis for the further systematic development of the theory of attitude, presented by the school of D. N. Uznadze. The scientist and his followers considered the attitude as processes and phenomena of a general psychological nature [2].

Some scholars propose to understand a socially conditioned attitude as the readiness and predisposition of an individual to perceive any external information, including social information, on the basis of an already formed own position and previously acquired experience of interpersonal communication [5, 22].

The analyzed approaches of researchers to the strategy of intercultural dialogue and tolerance [6-8, 11] allow concluding that interethnic attitudes can be formed, to identify mechanisms for their harmonization in a multicultural educational space. The theory of social attitudes contributes to the identification of mechanisms for the formation of a positive intercultural dialogue, since ethnic attitudes, in fact, cannot be neutral, and, depending on emotional richness, are divided into positive and negative. In the conditions of modern education, academic exchanges, it is important to create such an educational environment that would help eliminate possible interethnic misunderstandings, sometimes aggressiveness, contribute to the formation of interethnic tolerance, which is the basis of a constructive intercultural dialogue and the inclusion of subjects of the educational process in socially significant and positive activities.

Identification of the peculiarities of the process of teaching students in a sociocultural, interethnic environment contributed to the development of a set of pedagogical conditions, which are an important aspect of updating the process of teaching students in a multilingual environment of a university.

The relevance of the problem of forming a multilingual picture of the world among students of non-linguistic universities stems from the universal nature of the dialogue, which acts as a semantic content; professional and personal culture. At the same time, the study of the specifics of the formation of a multilingual picture of the world among students is based on the understanding that their goal is to master the profession, professional communications, and develop a culture of dialogue in the international professional space. V.S. Bibler and other scholars showed that modern education and modern psychology should correspond to the peculiarities of human thinking and essential forms of his activity in the 21st century and that the modern logic of thinking consists in a "dialogue of different cultural meanings of being", which, under appropriate conditions, can be embodied in a multilingual picture world of students [2, 21, 22].

In the conditions of multilingual education, methodological approaches for presenting educational material in the discipline under study become especially relevant. "In order for the material to be assimilated as fully as possible, it must be presented in such a way that the human cognitive system perceives it as simply and quickly as possible, without spending

too much effort on understanding the essence" [18]. In order to further unambiguous understanding of the issue under consideration, let us turn to the definition of the concept of "cognitive," that is, associated with cognition, with thinking. Scientists have identified important features of the study of mathematics and other natural science disciplines by foreign students in universities [5; 7; 12; 17]. The authors offer various methodological approaches in teaching mathematics:

- Using pedagogical techniques and methodological support, taking into account the multilingual composition of students (didactic materials are offered in several languages);
- Traditional education with enhanced language training and innovative approaches to explain to students in a non-native language the meaning and interpretation of basic mathematical terms, definitions, theorems, and formulas.

Let us note that both approaches are effective in teaching foreign citizens. In addition, the work [4] proposes a universal model of blended learning in the natural sciences, which allows it to be transformed for the study of mathematical disciplines. To achieve the planned learning outcomes, this model allows varying the volume of educational material offered in the traditional form and using information and communication technologies, taking into account differences in the perception of educational information by students.

Electronic resources developed taking into account the principle of cognition, in terms of the effectiveness of acquiring new knowledge, will be quite useful in teaching foreign citizens. With this approach, the studied material is built and arranged in such a way that the attention of students is concentrated on the main points of the educational material, on the relationship between sections of the discipline (module), on interdisciplinary interactions within the educational program, which allows students to understand the usefulness and applicability of new knowledge for further learning and in professional activity [18].

Within the framework of the "engineering of learning" paradigm [22], it is necessary to focus on the creation of an educational environment that allows students to set their own learning goals focused on a qualitative result. In addition, it is important to design the content of the information and educational environment [6], which contributes to the active educational and creative activities of students.

The technological basis for the formation of a multilingual picture of the world among students at the university is pedagogical technologies (individual translation, collective translation, chat, travel, videos, interactive excursions, trainings), which involve the implementation of an individualized system of events aimed at achieving the set goal. The leading role in these pedagogical technologies is played by the interaction between the student and the teacher, which is represented by three types [8, 9, 19]:

- Training and feedback, when the prepared educational materials allow students to achieve the educational goal of learning a foreign language and the career goal of getting to know the language of the intended professional and personal communication;
- Learning support offering additional elective help to students who need it, when the teacher, together with the student, creates an individual educational trajectory that details their personal curriculum, the support that the mentor will provide, and the success in the establishment of a multilingual picture of the world, which they intend reach;
- Help that allows students to contact the teacher when they have difficulties, when there are tasks that they cannot cope with on their own, or when any parts of the course require clarification in the curriculum or career plan.

Of great scientific and theoretical importance is the development of a model for the formation of a multilingual picture of the world among students, which is focused on the development of their language training and future career self-determination in

the global professional space. The integrative nature of the model as a complex, multidimensional phenomenon lies in the fact that it is not reducible to the totality of its components. The model provides for the organization of language training based on the following principles:

- The integrity of the preparation of the student as a future professional;
- -Problems of education, which consists in the consistent study of those problems and ways to solve them that exist in the professional field chosen by the student;
- The unity of theoretical and practical activities, manifested in the relationship between the theoretical study of the disciplines of the subject block and a foreign language;
- Motivation as a conscious professional perspective.

Researcher D.A. Kolb, one of the most prominent American educational theorists, whose work on student learning styles influenced the organization of the educational process in many educational institutions of the world, developed a cyclic model of cognition (Kolb model), the application of which in the educational process was developed in two directions [18]:

- Development and experimental verification of the theory of individual learning styles of students;
- Development of the theory of professionally oriented education.

Both theories are successfully applied, especially when studying at advanced training courses or mastering new specialties. At the same time, the use of the model in the classroom at a university encounters a difficulty [14] due to the lack of precise instructions for its use. This obstacle was overcome by the American teacher B. McCarthy for a slightly different model of cognition with the help of a system of four questions, which was called the MAT-system (MAT - from the abbreviation of the word "matter").

The learning technology using the McCarthy model is based on the cyclical asking of four questions: "Why?", "What?", "How?", "What if?" and clarifying the roles of the teacher and students [9]. The 4MAT-system guided the passage of the cognition cycle in four sectors well and therefore was adopted as an additional tool for conducting classes using the cognition model, the Kolb model. An attempt was made to address the little-known application of the Kolb model to the teaching of economics. The use of this model is associated with the formation of a certain style of cognition for students of economics, which ensures professionally oriented teaching of economic disciplines. In the context of the introduction of new educational standards, this is significant, since the emphasis is made on learning outcomes that are close to production situations. The successful application of this model in teaching students of economic specialties provides a solid basis for its implementation in the teaching of STEM disciplines, as well as disciplines in the humanities. With this approach, especially within the framework of project-based teaching strategies, the specific ethnocultural style of perception and communication, the "attitudes" of each student are taken into account, and at the same time, these styles and attitudes converge, which leads to the formation of a multilingual picture of the world as a whole in a group of students and, accordingly, facilitates multilingual learning.

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**Primary Paper Section: A**

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