Diagnosis of learning motives’ formation of first-year engineering students in higher educational establishment

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Received: 22/07/2017 • Approved: 17/08/2017

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ABSTRACT:
The question of motivating students for educational activities in higher education is one of the main issues of the general problem of motivation for learning. What types of motivation are better, and which are worse - is apparently determined by some assumptions and conditions and requirements of modern society. On the other hand, communicative motives are specific ones for foreign language education, which is an integral part of the curriculum for engineering students. The author gives diagnostic data on the formation of the types of motivation of first-year students, the author outlined prospects and suggested ways to increase the level of motivation of students to study at a technical college.

Keywords: motives, types of motives, interest, levels

RESUMEN:
La cuestión de motivar a los estudiantes para las actividades educativas en la educación superior es uno de los principales problemas del problema general de la motivación para el aprendizaje. ¿Qué tipos de motivación son más efectivas en los estudiantes y cuáles son peores - está aparentemente determinada por algunos supuestos y condiciones y requisitos de la sociedad moderna. Por otro lado, los motivos comunicativos son específicos para la enseñanza de lenguas extranjeras, que es una parte integral del currículo para estudiantes de ingeniería. El autor da datos de diagnóstico sobre la formación de los tipos de motivación de los estudiantes de primer año, el autor delineó perspectivas y sugirió formas de aumentar el nivel de motivación de los estudiantes para estudiar en un colegio técnico.

Palabras clave: motivos, tipos de motivos, intereses, niveles
1. Introduction

Many Russian and foreign scientists are studying the problem of forming motives for educational activities.

Michel Fumadelle (1971) identifies some types of motivations:

a) cognitive motivations (these motivations correspond to the gradually developing per capita perception that is characteristic of both man and animal);

b) social motivation (these motivations are manifested primarily in the desire to communicate with people and then, in the next stage, in reaction to the environment);

c) affective motivations (the individual gradually acquires spiritual autonomy and creates his own system of values, which he compares with the system of values in the family and in his sociolinguistic environment);

d) negative motivations (the dynamism of the behavior is connected more with the desire to eliminate or avoid the unpleasant than with the search for pleasure);

e) conflicts (the conflict can be caused by the fact that the individual can not find an adequate behavior that would bring him to the task assigned to him).

Russian psychologists (Pryazhnikov, 2008) distinguish: cognitive (interest in the content of educational material); social (the desire to prepare for the future profession); moral (get a good mark); motives of communication (it is interesting to communicate with the teacher, in the team) in the studies on the formation of motives for educational activities.

There are different classifications of motivation. For example, in linguodidactics (Tagunova, 1991) distinguishes: educational and cognitive motives (high interest in the studied subject); professional (acquisition of skills and abilities of professional-foreign communicative competence, desire to become a highly qualified specialist); socio-indentification (to deserve the respect of teachers and fellow students, avoid conviction and censure for poor schooling by parents); utilitarian (the desire to get a higher qualification and improve their financial position due to this).

At the same time, P.B. Gurvich distinguishes the following types of motivation: target (awareness of the ultimate goal of learning a foreign language and performing each task); motivation for success (motivation to learn a foreign language is significantly increased if the prospects for using knowledge are realized in extracurricular work); (comparative analysis and comparison of cultural peculiarities of the native country and the countries of study of the studied language allows to understand the features of linguistic phenomena better that represent the actual aspects of people's lives), etc.

E.I. Passov, considers two types of motivation for learning a foreign language:

- general communicative - its level often does not depend on the organization of the process of teaching the language;

- situational - its level is determined by "how we teach, in particular, how to create communication, what material we use, etc." (Passov, 2000).

All kinds of motivation the scientist divided into external: social motivation; motivation associated with the future development of the individual, and internal: communicative motivation; motivation, generated, mainly, by the most educational activity (Passov, 2000).

Motives are an important factor in the participation of a person in foreign-language communication. Therefore, our task was to identify a certain set of motives for learning a foreign language for students of non-linguistic specialties, and therefore, on this basis, organize work on the formation of motives that stimulate the activity of students in the process of foreign-language training.

On the basis of our research, taking into account the characteristics of the motives proposed in
pedagogy, linguodidactics, to characterize the motivation of students' activity in the process of preparation, we pointed out the following motives: communicative (includes the interest of communication in the lesson, the foreign language serves as a means of satisfying extracurricular interests); social (includes respect for teachers and fellow students, the desire to avoid conviction by parents and fellow students for poor schooling); pragmatic (includes professional motives, the desire to become a highly qualified specialist); cognitive (interested in the content of the subject, the form of the organization of classes and methods of teaching, interest in learning something new).

2. Methodology
The following theoretical and empirical methods were used: analysis, synthesis, generalization, classification, expert study, questioning, testing, pedagogical observation, study of psychological, pedagogical and methodological literature.

3. Results
Analysis of the motives formation showed, that the most popular motives are social ones - 56%, cognitive - 10%, communicative - 11%, pragmatic ones are much less 23%. We believe that such results are due to the fact that students do not understand the importance of a foreign language in their future professional sphere, they do not see the possibility of applying this knowledge to improve their professional level.

An equally important criterion in determining the level of motives formation may be the degree of student's attitude formation to foreign-language education. In the process of professional training, students can show both a positive and negative attitude to this type of activity. It is the nature of the relationship that affects the activity of students in training and characterizes the degree of interest of future specialists in communicating in a foreign language in their professional activities (Artemyeva, 2005).

An important indicator of a person's positive attitude toward activity, including the educational one, is interest (Zimniya, 2001), the degree of its formation is the criterion of the student's level of preparation studied by us. Regarding our problem, we are interested in the professional component of the communication activities of students in a foreign language. Indicators of this criterion can be the stability of interest, the characteristics of attitudes toward learning a foreign language and the nature of student participation in communication in a foreign language.

Determining the level of preparedness for foreign language activity in a foreign language is quite a challenge. Therefore, we used a method such as an expert study. To assess the weight of each group of motives and interest, a group of experts was created, consisting of teachers from the Department of Natural Sciences and Humanities at the TIU Branch in Surgut. After getting acquainted with the motives that we identified, the experts determined the weight of each group of motives and interest in this discipline. The analysis of the results of expert research showed that the most significant in professional training are communicative and pragmatic motives. Other motives, social and cognitive, in the opinion of experts, also play an important role in the pedagogical process, but they affect to a lesser extent the desire to learn as a whole.

Based on the results of the expert study, we identified three levels of the formation of motivation for students to study and foreign language activities in higher education: high, medium and low.

High level - the student's activity in the process of preparation is conditioned by all types of motivation. The student is positively attuned to learning activity, shows a steady interest in learning, the skills of professional communication in a foreign language in his future professional activities; actively participates in the educational process while studying the discipline "Foreign Language".
The average level - the student's activity in the process of professional training is characterized by pragmatic motives. The student is aware of the need to master the skills for the purpose of application in professional activities; seeks to improve them. Attitude to learning activity is neutral. Interest is episodic. Activity in studying the discipline "Foreign Language" is low. 

Low level - the student's activity in the process of preparation is conditioned by cognitive (it interests the forms and methods of teaching) and social motives. The student is negative about this activity, there is no interest in learning; the activity, studying the discipline "Foreign Language" is low. 

The stability of interest was determined on the basis of the questionnaires developed (Sokolova, 2010, Passov, 2000). 

Data on the diagnosis of the formation of the types of motives are given in Table 1.

<table>
<thead>
<tr>
<th>Motives</th>
<th>Social</th>
<th>Pragmatic</th>
<th>Communicative</th>
<th>Educational and cognitive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+3</td>
<td>+2</td>
<td>+1</td>
<td>X</td>
</tr>
<tr>
<td>Average</td>
<td>-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

4. Conclusion

The results of diagnostics let teachers identify incentives, ways to enhance these types of motivation teaching in higher education.

Based on the pedagogical experience, the analysis of methodological literature, we have identified the following incentives (Ibatova et al., 2017):

- reliance on the existing life experience of students in the learning process, which should increase the activity of students;
- explaining the importance of the knowledge and skills for future professional activities;
- using of different forms and methods of conducting classes;
- creating a positive emotional background in class.

Work on the formation of students' interest in learning activities should be carried out not at the expense of any reception, method, means of instruction, but their combination.

For example, in order to develop communicative and pragmatic motives, it is necessary to involve students in active communicative activities, namely: creating interaction situations in a practical lesson, simulating events, simulating images of real life, which encourages students to express their own opinion. Creation of such situations of communication is possible when organizing such a form of study as a lesson-discussion. Such classes require careful preparation...
of teachers and students, so these classes should be conducted after the topics studied. Students are offered advance discussion questions on which they can prepare their statements. Conducting a discussion in a foreign language provides invaluable assistance in oral practice, the conscious use of a foreign language for practical purposes, and helps to increase the level of communicative motives.

The development of pragmatic motives is also facilitated by the participation of students with projects at student scientific-practical conferences, speaking at their younger fellow students, participating in the university projects.

Also, in order to develop communicative and pragmatic motives, practical training classes of various forms can be used: a round table, an excursion to a virtual museum, a seminar, a session, the protection of projects, etc.

Another incentive for the formation and development of interest in learning a foreign language is the content of the teaching material, which is realized through the interaction of the learning process with the content of professional activity. One of such sources of interest is the professionally oriented material, as the university provides professional training of specialists in this field (Ibatova et al., 2017).

It should be noted that incentives for cognitive and social motives can be interesting professional-oriented material, praise, encouragement, gratitude, attestation, etc.

Thus, we identified the main important types of motives that contribute to the successful educational activity of students, identified incentives and ways to enhance these types of motivation. We hope that the use of such a combination promotes the development of communicative and pragmatic, cognitive and social motivation, as well as vocational training in general.

Bibliographic references