

## ENCOURAGING STUDENT ENGAGEMENT AND MOTIVATION IN ENGLISH LANGUAGE COURSES IN ENGINEERING AND TECHNICAL SPECIALTIES

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**ABSTRACT.** The student engagement and motivation in English language learning in engineering and technical specialties are determined by factors such as interest, success, influence of feelings and feedback - reflection. The motivation is enhanced by inspiring of self-confidence in acquiring knowledge, setting achievable goals and clear requirements, raising the curiosity by solving practical problems and sharing experience, providing an opportunity for self-assessment, stimulating receptivity by introducing an element of surprise when upgrading knowledge, the use of brainstorming and measured humor. It is necessary to justify the applicability of knowledge in English language by specific examples in order to achieve the satisfaction of the student. The active dialogue and the timely feedback of a lecturer-student are of utmost importance. The introduction of diversity through the use of video materials, presentations and discussions, helps to cover the differences in learning styles and allows each student the opportunity for expression. The increasing of motivation for English language learning of students in Bulgarian universities is closely related to improving the quality of education.

**Keywords:** motivation, engagement, English learning, training, foreign language skills, interdisciplinary approach, case study approach

### НАСЪРЧАВАНЕ НА СТУДЕНТСКАТА АНГАЖИРАНост И МОТИВАЦИЯ ПРИ ОБУЧЕНИЕТО ПО АНГЛИЙСКИ ЕЗИК В ИНЖЕНЕРНО-ТЕХНИЧЕСКИТЕ СПЕЦИАЛНОСТИ

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**РЕЗЮМЕ.** Студентската ангажираност и мотивация при изучаването на английски език в инженерно-техническите специалности се определят от фактори като заинтересованост, успех, влияние на чувствата и обратната връзка – рефлексията. Мотивацията се повишава чрез вдъхване на увереност в знанията, поставяне на постижими цели и ясни предварителни изисквания, повишаване на любопитството чрез решаване на конкретни практически проблеми и споделяне на опит, предоставяне на възможност за самооценка, възбуждане на възприемчивостта чрез внасяне на елемент на изненада при надграждане на знанията, използване на активности от типа на мозъчна атака и внасяне на премерен хумор. Необходимо е обосноваването на приложимостта на знанията по английски език чрез конкретни примери с цел постигане на удовлетвореност у студента. От изключителна важност е активният диалог и своевременната обратна връзка преподавател-студент. Внасянето на разнообразие чрез използване на видеоматериали, презентации и дискусии спомага за покриване на различията в стиловете на учене и дава възможност за изява на всеки студент. Повишаването на равнището на мотивация за учене на английски език у студентите в българските университети е тясно свързан с повишаване на качеството на образованието.

**Ключови думи:** мотивация, ангажираност, обучение на английски, подготовка, чуждоезикови умения, интердисциплинарен подход, казусен подход

### Introduction

English is a dominant language for global communication in business and science. In order to achieve the best possible professional qualification and optimal realization in the labour market, students from technical universities should have good knowledge of English. At this stage, there is still something to be desired about this. Mastery of English is one of the main requirements of employers in modern society and foreign language learning is an essential part of the preparation of students at St. Ivan Rilski University of Mining and Geology in Sofia city (Purvanova et al., 2010). A good command of English enables students to take part in the Erasmus program for the mobility of university students, where they can study one or two semesters at a selected foreign university - partner of St. Ivan Rilski University of Mining and Geology. Good knowledge of English is also required for successful completion of a PhD thesis, as well as for obtaining a scholarship for a PhD study abroad. With the necessary motivation, perseverance and serious attitude of the students,

the excellent results come. The benefits of language skills for career success are proven, personal development in/out of the profession, as well as for fulfillment of academic tasks (Yankulova, 2012). Knowing the style and the type of motivation of different students is important for the lecturer. Motivator for learning is the relevance of the information (Sternberg and Williams, 2001). It must match their current desires and needs and create the feeling that it is useful to them. Motivation is an inner state of people, a set of conscious internal motives, with the main function of determining, justifying, activating, directing, stimulating, maintaining and controlling their behavior through direct and intensive feedback between the specific objectives in language learning, actions and the final results obtained.

English learning in the engineering specialties should be subject to specific academic standards and implementation of professional requirements, according to the ideas for quality improvement, wider applicability, internationalization and international recognition of the education (Kostova, 2001).

## Problem statement

The purpose of this report is to clarify the ways to improve the motivation and engagement of students at technical universities in English language learning and, hence the effectiveness and quality of their preparation. Motivation is the driving force behind a particular goal and is an important precondition for the success of English language learning. Learning begins with needs that generate motives and create a goal (Vassileva, 1993). To determine the level of motivation and engagement of students to English language learning, we apply the methods of summarizing, synthesizing and analyzing the information from the observation on their work and behavior in class. Most students are working and are married, coming with great ambition, motivation for achievements and the will to succeed.

Every teacher's task is to awaken, reveal and maintain the motivation of students, to help them seek their success, to instill in them the right habits necessary for their personal development and realization. There must be good communication between the lecturer and the students (Kostova et al., 2013). Students should be seriously involved in activities directly related to English language learning. They must be motivated to learn English to be able to use modern textbooks on specialized disciplines in English in the original in order to gain better technical training, to be able to work effectively in foreign companies and to develop their social relationships with colleagues (Kostadinova, 2013).

## Factors influencing motivation

Factors that influence students' motivation for learning and their active participation in the learning process and taken into account when planning, organizing and conducting English classes, are:

- Personal motivation for learning English - striving for professional, educational and cultural improvement; goals, related to career development; satisfying personal interests; motivation under external pressure or imitation of someone else (Klaus, 1987).
- Devotion - the extent to which the student actively and conscientiously participates in the process of English language learning.
- Help from the learning environment - the extent to which the support of the teacher helps to gain an experience in learning.
- The student's value system.
- The physical environment at the university.
- Self-confidence, expectation for success and learning adjustment, as well as learning skills and interests.
- The conditions at home, assisting or impeding the learning process.
- Attitudes towards language and learning issues.
- Financial opportunities of the students.
- Cultural and personal characteristics ("stories") of the students.
- Previous educational and professional experience.
- Working conditions (for students who work).
- Skills available for effective learning and time management.
- Interest related to certain issues, job prospects.

- Intellectual, psychological, physical abilities of the individual student.
- The teachers- their professionalism, mastery and relationship with the students.

Students have a different entrance level of language proficiency, which implies a different tempo of mastering the subject. This creates a risk of losing interest in the learning process by more advanced learners who already have good knowledge of the matter, presented at the moment, or discouragement, disappointment and despair in less fluent learners - a situation that could be overcome by a differentiated, individual approach in learning (Nikov, 1994).

My observations show that the younger the learners or recently completed secondary education, the better they master the language and are more motivated. I found that encouragement makes students feel more special and along with satisfaction of achieving good results increase motivation for learning. Despite the unfavorable demographic situation and emigration (including educational emigration) from Bulgaria, which have a negative impact on the quality of the preparation of admitted students, the level of motivation for learning among our students is relatively high. However, there is a difference of possibilities and motivation among students for effective learning of the matter taught.

## Motivational practices

The interest of learners in academic activities and in particular in English learning, is preserved and can be increased by:

- Active dialogue and precise analysis of timely student-teacher feedback through surveys, conversations, tests and relevant reflection of its importance;
- Discussion of confusing moments and making a creative atmosphere for work and enthusiastic learning;
- Maintaining pragmatism in the learning process, based on an emphasis on practical knowledge and skills in the learning content. Giving exercises and provoking cognitive interest;
- Emphasize the skills for understanding and conducting a conversation;
- Building and maintaining the identity of each student as an active participant in the learning process;
- Creating an appropriate learning environment, an academic atmosphere and necessary equipment (Angelova et al., 2005);
- Facilitating the access to relevant information, textbooks and reference books;
- Placing possible and meaningful tasks with realistic deadlines;
- Stimulating student's initiative and ambition;
- Strict monitoring of the attendance in classes and the engagement of the students during the semesters;
- Periodic analysis of the student's achievements;
- Using of appropriate form and time of teaching (learning system, textbook, teaching method, methodology), exercises, review and calm environment (Purvanova et al., 2014);
- Adopting good practices and modern methods in the learning process (Purvanova et al., 2008);
- Applying of interactive methods in language learning (Purvanova et al., 2011);

- Introducing a surprise element in teaching and testing;
- Using the brainstorm method;
- Using presentations and video materials in English teaching;
- Providing opportunities for improving their evaluation and grades;
- Flexibility and adaptability of the curriculum, linked to the needs of business, as well as the social practice of the student;
- Introduction of IT in the learning process (Kremenska, 2010);
- Encouraging students to have more perseverance and persistence in the implementation of the assigned goals in the curriculum;
- Enrichment of the university library with periodicals and specialized literature in English in the field of technology, innovations, good practices in mining and entrepreneurship;
- Introducing a competence-based approach to teaching in close cooperation with business. Organizing of a meeting (or on-site visit) with foreign investors in the mining sector, for example "Balkan Mineral Mining" AD, Krumovgrad town.

From my educational practice I can point out that the attention of students is best attracted by discussing current issues and applying an individual approach in view of their psychological peculiarities.

### **Analysis for student motivation**

It is wrong to think that all students have a strong motivation to learn. Some may have begun learning under different circumstances, or external pressure from an employer or have prejudices to the English language. For other learners, motivation to learn English may be reduced due to personal problems. It is the teacher who must take into account the factors that motivate or demotivate students and influence the effectiveness of their learning.

It is important for the lecturer to know what discourages students in learning English. Learning is an emotional process, and there is also fear in it - not to be exposed to fail, or be an object of ridicule for your poor pronunciation, not to be appreciated, not to understand you, not to notice you, and etc. Fear, anxiety and anger are emotional factors that negatively affect learning. They cause stress or are the result of stress that can lead to negative disorganized behavior. Other demotivators for adequate learning are fatigue and boredom. Working or married students have to balance between many responsibilities that often appear to be a barrier to their participation in learning activities - lack of time, money, information, problems with daily workload, bureaucratic problems, issues with raising a child and with transport.

### **Methods, approaches and rules for motivation**

On the basis of my analysis in teaching English to students of five majors – Computer technologies in engineering, Automation, information and controlling equipment, Development of mineral resources, Management of resources and production systems, and Processing and recycling of materials, I can say that greater engagement in English learning is available mainly in the initial courses of computer specialty. A multidisciplinary socio-constructivist approach can be used to enhance student engagement in English language

learning (Papworth, 2016). Students are offered to use their skills acquired in other modules of their curriculum, such as project planning, project management, preparation of project reports, planning and holding meetings and working together.

The interdisciplinary approach to foreign language learning makes students to analyze and combine knowledge of different disciplines in solving a particular problem (Terzieva and Pancheva, 2013). When defining methodological guidelines and shaping the content of a specialized language course, focusing on the application of the English language in the context of professional activity, it is necessary to analyze the specific needs of students to develop foreign language skills that are part of the professional competencies, i.e. what students expect from the training and to apply multiple method (Purvanova et al, 2016). In the curriculum content it could be included situations, activities, functions, concepts and language forms (Terzieva and Kolarski, 2014).

It is established a link between English language competence and the level of academic and professional training, integration of language knowledge and knowledge of the specialty, common language and communication skills, and specific skills for self-development and introducing key situations for the career (Terzieva and Kolarski, 2014).

Applying a case study approach in English language learning to students at technical universities helps developing foreign language communication skills. From the analysis of the content of specialized engineering and technology disciplines are defined basic concepts- scientific and technical, related to professional activities and key situations which will form the basis for development of case studies, reflecting different real situations from the practice in the respective field (Terzieva et al., 2015).

The main rules for motivating students are:

- The more the training responds to the learners' individual needs, interests, goals and their abilities, the greater their motivation for learning is.
- The more a person has studied, the more his motivation to learn the English language is! Adults learn better if they have already experienced the benefits of learning (Slavin, 2004).
- Students are motivated to learn if they are involved in the learning process. Therefore, the teacher should be aware of or match the expectations with the goals and the training program, to include them in the evaluation process and self-evaluation.
- Students are motivated to learn if different motivation factors are adequately combined for them: lack of time, place, and transport difficulties; financial incentives-scholarships, expected promotion; appropriate learning proposals; professional requirements; family environment; free time for learning and access to study materials.

I have found out that it is also very useful to apply audio-visual methods in the learning process.

### **The role of the teacher to motivate students**

Teachers should teach with enthusiasm and ask themselves the following specific questions:

At the beginning of the class:

1. How can this learning content best meet the needs of my students?
2. What can I do to create a positive attitude in my students towards the curriculum?

During the class:

3. Is consistency of exposure to the curriculum relevant and does it stimulate my students' interest?
4. How does the emotional effect of the presentation of the material and the microclimate positively stimulate students?

At the end of the class:

5. How did the presentation of the material in the specific consistency lead to an increase or strengthening the feeling of the students' sense of competence?
6. What does the learning material in this lesson give to students (Brown and Race, 2002)?

Teachers can better motivate their students to learn English if they know: their level of life and learning experience, their knowledge and learning skills; what would be useful for their learning; what is the level of their personal responsibility to learning; what learning orientation (problematic or subject) is more appropriate for them; what is the level of their motivation to learn; what are their expectations, attitudes and interests in terms of learning English.

In teaching English, the teacher should aim at:

- A microclimate based on trust, cooperation, understanding and learning pleasure;
- Focus on students' responsibility for their own learning;
- Developing a sense of responsibility, satisfaction and appreciation, enhancing the enjoyment of learning (Tzvetkova, 2001);
- Enabling additional consultations and communication outside the classroom;
- Sorting tasks according to the degree of complexity; assigning additional tasks to achieve better learning results;
- Encourage the expression of unconfident students;
- Encouraging the expression of personal opinion on the topics studied;
- Creating and developing positive critical thinking, developing the quest for more information, overcoming the consumer's attitude to learning.

As an example of my practice I can point out that the most effective implementation of realistic goals is the use of specific terminology and communicative skills. In my opinion, it is important for the teacher to combine traditional with innovative learning and also to be good-natured, i.e. to respond to the needs of students, to be concerned about their interests in order to gain their trust.

## Conclusion

Increasing motivation to learn English is a difficult task and its successful implementation depends on internal and external factors. Personal strive for self-improvement, the creative thinking, the optimistic view of life are of great importance for each student. To help students and provoke their motivation to learn, we teachers must create the conditions for:

- an appropriate environment for learning;

- motivating feedback and encouraging messages;
- constructive criticism;
- persuasion and encouragement;
- setting realistic goals;
- supporting ambitious learning and initiative.

Motivation for learning is strictly individual, based on the personal characteristics and interaction of the individual with the environment. The perfect combination of traditional methods and forms of learning with modern methods and approaches is the only right solution for the future of technical universities to become an attractive and challenging place where students will learn with strong motivation and engagement. English language learning should be structured so as to increase motivation for learning and lead to personal change.

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The article is reviewed by Assist. Prof. M. Hristova and Assist. Prof. M. Purvanova