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## Innovative Technology of Teaching Professional English At A Technical University In Russia

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### ABSTRACT

This paper is a report on the findings of a study conducted at Samara state university of architecture and civil engineering, at the faculty of engineering economics. The research is devoted to interactive methods of English teaching. The author considers various interpretations of the concept “interactive methods”, analyses their effectiveness and develops own system of foreign language teaching, that is focused on the participation of all students in the speech process and chooses “team-building technology” as a core element of this system and as a type of interactive methods. This technology includes the complex of games in English. The results of the study prove that implementation of such games efficiently improves language level and develops professional skills of engineers—managers.

**Keywords:** engineering education, teaching system, foreign language, psychodrama approach, frame approach, “team-building” technology, games in English, corporate culture.

### INTRODUCTION

Nowadays due to political, economical and social changes that take place in Russian Federation cultural and business interaction with other countries has considerably developed, and as a result, it influenced construction engineering and engineering education in general. Many enterprises and joint-venture companies demand high-technology developments, that have commercial value and meet the requirements of overseas customers.

Study of Russian and international requirements to the training of a qualified engineer show that professional competence of an engineer is determined not only by high professional level of knowledge, but also by the ability to interact in

a team of specialists (V.I. Baidenko, E.V. Belov). Consequently, the modernization of education at technical universities becomes urgent. English language teaching plays a great role in this as it increases the competitiveness of graduates.

Much research was conducted, concerning methods of teaching: learning and teaching styles in engineering education (Richard M. Felder, Linda K. Silverman); new teaching approaches (Jeffrey Rhoads, Charles Krousgrill, Emil Venere); learning approaches (P. Kapranos & P. Tsakiroopoulos); strategies of engineering education were identified (M.N. Vraznova, V.D. Zuravskiy, Z.A. Sazonova, I.B. Fyedorov, Peter J Goodhew). The analysis of these works proves that teaching and education in a modern technical university has become interactive and innovative.

The aim of this paper is to show basic characteristics of interactive education and its effectiveness at English lessons.

## THE STUDY

English language as a discipline in technical universities influences the personal and professional potential of students. English language studying, like studying of any other language, develops integrative thinking of an engineer. Engineer students don't only master English language, but also develop professional skills that are necessary in engineering business. The atmosphere and communicative approach of this discipline imply the introduction of interactive methods. "The foreign language lesson is characterized by the formation of creative personality as teaching communication can't take place in spiritless atmosphere" [E.G. Kashina, 2007].

Interactive methods replaced the communicative methods of education, as they increase the students' motivation, purposefulness and allow to organize a lesson in such a way that all students are involved into English language speaking. Lesson management with the help of interactive methods help to form culture speech, which is essential in their future profession.

It is important to determine the concept 'interactivness'. Nikishina V.O. defines 'interactiveness as 'speech interaction of two or more people' [4]. Obskov A.V. interprets it as 'an enhanced activity in a group of people' [5]. In general, Russian researchers define 'interactiveness' as activity of people, while foreign researchers (Louis Abrahamson, Otis Lam, Lucia Yeung) understand it as 'constructing knowledge together'. There can be various examples of interactive exercises: 1) think- pair-share; 2) Buzz group; 3) Case Study; 4) Asking questions; 5) Note review; 6) Role-playing; 7) Short writing exercises; 8) Demonstration; 9) Discussion; 10) Brainstorming; 11) Debate (between students and Teacher); 12) Simulation.

These techniques have multiple benefits: the instructor can easily and quickly assess if students have really mastered the material (and plan to dedicate more time to it, if necessary), and the process of measuring student understanding in many cases is also practice for the material—often students do not actually learn the material until asked to make use of it in assessments such as these. Finally, the very nature of these assessments drives interactivity and brings several benefits. Students are revived from their passivity of merely listening to a lecture and instead become attentive and engaged, two prerequisites for effective learning. These techniques are often perceived as "fun", yet they are frequently more effective than lectures at enabling student learning.

At the chair of linguistics and cross-cultural communication such type of interactive methods as "team-building technology" is used. Before choosing this technique a detailed analysis of scientific literature was made, that allowed to reveal the specific features of engineering-economists profession – integrativity of functions both of an economist and engineer. Engineering business – is the professional sphere of engineers-economists (engineers-managers) which has the following peculiarities: the leading type of activity is managerial, consisting of several stages (planning, realization, control and reflection). Engineer-economist should possess communicative skills in English and ability to perform in a team.

The pilot study, carried out at the engineering-economics faculty of Samara university of architecture and civil engineering, showed beginner and elementary level of English, which stimulated search of new ways of teaching.

The developed system consists of content element which is based on frame approach and is represented by the discipline "Foreign language", and organizational element, based on methodological assumptions of psychodrama and contextual approaches. The core part of content element is a discipline "Foreign language", aimed at teaching foreign language with the help of frame approach. Frames help students to master professional terminology. The frames that constitute the system are not only lexico-semantic units, but also terminology of certain professional activities context, thus they become part of behavior and professional style.

Organizational element of the system is a combination of games, which are selected on the base of psychodrama and context approaches. These games will help to imitate the professional activity, the professional roles are acted, the professional reality is performed due to the context that resemble the sphere of engineering business. The "team-building technology" includes situations of true-to life communication in the managerial process of engineering-economists. These situation help students to motivate, persuade and support the members of a professional team.

Brian Coal Miller selects the following types of games: 1) battling: games that teach healthy competition; 2) support: activities to appreciate and help each other; 3) teamwork: challenges that require cooperation; 4) creativity: challenges that encourage out of the box thinking [1]

**FINDINGS**

Concerning the profession of engineers-managers, they should possess various communicative skills at every stage of management. These communicative skills are reflected in the professional roles they play such as: informant, director, motivator and critic. The games that were taken into consideration are aimed at developing each of these roles described.

**Table 1:** Games that develop professional roles.

Types of games	Professional roles	Communicative skills
1. Support: activities to appreciate and help each other	Informator	Inform
2. Battling: games that teach healthy competition	Director	Decision-making in conflict situations
3. Teamwork: challenges that require cooperation	Motivator	Motivation and support
4. Games for stimulating critical thinking (out of the box thinking)	Critics	Distributing the duties and positive criticism

All these skills described in the Table 1 are necessary for building a positive group dynamics that means an engineer-manager should possess abilities to work in a team. The norms of communication are one of the main elements of corporate culture.

The analysis of corporate culture theories (T. Deel, A. Kennedy, F. Trompenaars, E. Shein, M. Hall, G. Hofstede), consideration of concepts “culture”, “corporate culture of an organization”, “corporate culture of a person” has allowed to conclude that the basic component of these notions is communication as the instrument of corporate culture formation. Corporate culture helps the specialist who is involved in management to work effectively, to share information among all the members of the team in engineering business.

While developing the structure of corporate culture of an engineer-manager it was decided to use the professional roles of an engineer-manager and the communicative skills mentioned above. According to these findings it was assumed that corporate culture of an engineer-manager consists of cognitive, motivational, communicative and reflexive components, thus this notion can be defined as an ability to perform communicative functions in the process of management.

**Table 2:** Logics of modeling the corporate culture structure of engineers-managers

Stages of management	Planning	Realization	Control	Reflection
Roles of engineers managers	Informator	Motivator	Director	Critic
Corporate culture components	Cognitive	Motivational	Communicative-managerial	Reflexive

Taking into consideration the fact that the management process of an engineer manager is international, the problem of teaching English becomes urgent.

The initial experiment showed that students of engineering-economics faculty don't possess corporate culture (98 students answered the questionnaire) and the level of English is very poor. This situation required development of a teaching system that included games and activities. They were used during the whole semester (4 months).

**CONCLUSIONS**

Games that are selected according to the principles of psychodrama and context approaches enabled the formation of corporate culture components. Activities to appreciate and help each other enable the formation cognitive component as students obtain knowledge of psychological peculiarities of a person in management. Games that teach healthy competition formed communicative component of corporate culture as the skill of emotional support is formed. Challenges that require cooperation form the motivational component as a certain management style is formed. Games for stimulating critical thinking (out of the box thinking) form the reflexive component.

**Table 3:** Comparing analysis of corporate culture formation at different stages of experiment

(% index)

Corporate culture components	Initial experiment	Final experiment
Cognitive	10,0	82,0
Motivational	51,0	79,0

Communicative	25,0	91,0
Reflexive	25,0	83,0

For more detailed analysis of results of corporate culture formation interrelation of these indexes was identified with the help of correlation analysis. The final experiment showed very strong interrelation between all the components(both initial and final experiment indexes compared) : cognitive and motivational (before  $r=0,673$ , after  $r=0,766$ ); communicative and reflexive (before  $r=0,506$ ,after  $r=0,710$ ); motivational and reflexive (before  $r=0,401$ , after  $r=0,651$ ). These findings can be beneficial for teaching not only engineers-managers, but students of other technical specializations and can be used for designing a new discipline "Professional English".

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