BUILDING POSITIVE GROUP DYNAMICS IN ENGLISH LANGUAGE TEACHING AT TECHNICAL UNIVERSITY

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Abstract. *This paper is a report on the findings of a study conducted at Samara state technical university, at the faculty of engineering economics. The research is devoted to building positive group dynamics and interactive methods in ELT that are used to provide a positive group atmosphere. The author considers various interpretations of the concept "interactive methods", analyses their effectiveness and develops a specific 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 that include complex of games in English. The results of the study prove that implementation of such games efficiently improves language level and builds a positive group dynamics.*
Keywords: *corporate culture, engineering education, foreign language, frame approach, games in English, psychodrama approach, teaching system, "team-building" technology.*

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 (Baidenko, 2007). 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 by developing certain professional skills of a future specialist. Consequently, the problem of the research is to find the way to develop professional skills of a modern engineer with the help of the English language learning.

The present research was conducted to find solutions to the following problems:

- to improve knowledge of the English language of Bachelor's students at the faculty of engineering economics by implementation games in English;
- to develop the main professional skill of engineers-managers - team-work skill in the structure of their corporate culture that facilitates building positive group dynamics;
- to design a new integrated discipline that combines management teaching and English language teaching and will serve as a theoretical base for further integrated courses design for Jean Monnet Modules development - Development of Academic Interaction Skills for Research Work in EU Environment in particular.

Much research was conducted, concerning methods of teaching: learning and teaching styles in engineering education (Felder & Silverman, 1988); new teaching approaches in engineering education (Richards & Rogers, 2014); strategies of engineering education were identified (Kashina, 2012). The authors of these papers state that teaching and education at technical university should be interactive, innovative, communicative and that teaching practices should meet the needs of students with the full spectrum of styles.

We believe that the best way to combine various learning styles and to make lessons interactive is to introduce team-building technology into the educational process as a type of interactive education that will help to build a positive group dynamics.

The research was conducted during two-year period time and contained two types of experiment: pilot study and final experiment. 120 students took part in the research.

We used surveys to collect information both at the stage of pilot study and final experiment. These surveys included questions about the understanding of what team-work is, what elements are there in the content of corporate culture that help to organize the team work, how students understand their professional duties and roles. These surveys were collected and compared at different stages of research. Essay was also used as a data-gathering tool.

Sample Selection

We used purposive sampling, studying particular group of students – Bachelor students of engineering economics faculty with the specialization in quality management and control of the construction process. We have chosen this target group, as they were to participate in the project "Entrepreneurs for

Tomorrow" that aims to establish a new Master programme for Sustainable Entrepreneurship in Samara and the Samara region. The students who were going to be involved in this programme in the future at their Masters' should develop essential skills for setting up their own company and work successfully in a number of enterprises. Therefore, the team-building teaching technology, proposed in this paper, will serve as the training background for the chosen target group, preparing them for future educational programs, implemented at Samara state technical university.

Research Instrument and Procedures

120 students took part in the pilot study, carried out at the engineering-economics faculty of Samara state technical university and showed beginner and elementary level of English, which stimulated search of new ways of teaching. Moreover, they were given questionnaires that tested their understanding of corporate culture, importance of teamwork and positive group dynamics in their future carrier. The results showed very poor understanding of professional and work requirements. These drawbacks simulated the research and development of a new teaching system.

The English language lessons were chosen as the background for implementation of the teaching system, as this discipline at 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. Students of the faculty of engineering economics do not only master the English language, but also develop professional skills that are necessary in engineering business. "The foreign language lesson is characterized by the formation of creative personality as teaching communication can't take place in spiritless atmosphere" (Kashina, 2007). The atmosphere and communicative approach of this discipline imply the introduction of interactive methods

Interactive methods replaced the communicative methods of education, as they increase the students' motivation, purposefulness and allow to manage a lesson in such a way that all students are involved into English language speaking, their culture of speech is improving, which is so important for their future profession.

It is important to determine the concept 'interactivness'. Nikishina (2013) defines 'interactiveness as 'speech interaction of two or more people'. Obskov (2005) interprets it as 'an enhanced activity in a group of people'. In general, Russian researchers define 'interactiveness' as activity of people. 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 students' 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. These techniques are often perceived as "fun", yet they are frequently more effective than lectures at enabling student learning.

At the department of linguistics and cross-cultural communication such type of interactive methods as "team-building technology' was used for the first time as the leading method of this study. Before choosing this technique a detailed analysis of scientific literature was conducted, that allowed to reveal the specific features of engineering-economists profession – integrativity of functions both of an economist and engineer, whose main aim is to build positive group dynamics in a team. 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.

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, that helps to build positive groups dynamics, 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 1 **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

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 pscychodrama 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-semantical 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.

Armstrong (2008) 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.

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: informator, director, motivator and critic. The games that were taken into consideration are aimed at developing each of these roles described.

Table 2 **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 2 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 (Harrison, Price, Gavin, & Florey, 2002), 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.

Examples of Team-building Activities Used in the Experiments

Feel the word
Write twenty words beginning with A on the flipchart. Choose a word you like and put it in the sentence. Find the average number of syllables in a word. Categorize the words according to your own criteria. Choose three words and put them in a poem or a song (groups of four). Repeat a word in your head. Find its weight, color, temperature, texture, smell, taste. Look at the flipchart silently then put it away. Now replicate five of the words and ask others to rebuild the whole word picture. Close your eyes and reflect on all the exercises. Discuss each of the exercises. Which of them did you find the most and the least motivating personally?

Vanishing stories
The greedy mayor and the bloated alderman refused to pay the Pied-Piper the gold they have promised him for luring the rats of Hamlin into the fast-flowing river, which makes him so angry that he leads away the children of the city and they vanish forever into the mountainside.

Task: 1) You may take one word out. 2) You may take two consecutive words out. 3) You may take three consecutive words. 4) You must not add anything. 5) You must not change or modify any words. 6) You must not move any words. 7) You may delete, change, or add punctuation as needed. 8) After each deletion the student who has proposed it must read the remaining sentence aloud: this must be grammatically correct and must have a meaning, though the meaning will change as the exercise progresses.

Data Analysis

The initial experiment showed that students of engineering-economics faculty don't possess corporate culture (120 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).

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 of 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, certain management style is formed. Games for stimulating critical thinking (out of the box thinking) form the reflexive component.

Table 3 **Comparative 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).

Conclusions

This two-years study was very important for the department of linguistics, cross cultural communication and Russian as a foreign language as the implementation of the above mentioned role games helped to achieve certain results: developed students' awareness of the importance of the English language in their future profession, which was evident in their essay writing after finishing the course; intensive practice of basic management and engineering vocabulary, as the students' learnt how to make instructions in English and studied strategies of compromise and group decision making; developed communicative abilities, as these interactive activities boosted motivation through fascinating speaking activities and intensive team work.

In general, these findings can be beneficial for teaching not only engineers-managers, but also students of other technical specializations and can be used for designing a new interdisciplinary discipline "Professional English for Engineers Managers" and prepare students' for Master programme.

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