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## Professionally-Oriented Communicative Language Teaching Approach by the Design of a Computer Assisted ESP Course: Analysis of Results

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### Abstract

Professionally-Oriented Communicative Language Teaching is an effective approach widely recognized among scientists and teachers which involves learners in authentic environment and communication and helps develop communicative competence of non-native speakers studying English for specific purposes (ESP).

With the increase of Computer Assisted Language Learning teachers are constantly facing challenges to combine information technology with the Professionally-Oriented Communicative Language Teaching approach, and to develop and design relevant communicative activities which result in non-native speakers' of English improvement in communicative competence. The attempt to integrate computer assisted language environments and professionally oriented communicative language teaching results in the development of E-learning ESP courses in the Modular Object Oriented Developmental Learning Environment, based on the module "Electric systems and networks".

The subjects of the study were sixty students, including students from Vietnam and the Czech Republic studying ESP at the Institute of Power Engineering of Tomsk Polytechnic University. The data was collected over a period of two years from the results of students' performance and a questionnaire survey concerning feedback on students' communicative language activities conducted during the course. The results indicate variations in the attitude of students from different countries to the developed communication activities. As the students state, however, the e-learning ESP course provides communicative situations similar to real ones and gives an opportunity to use the acquired knowledge in practical, professional, and research activity.

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## 1. Introduction

The modern educational situation in Russia is characterized by the following trends: the integration of information technologies into the educational process, constant scientific development, and the necessity for teachers to develop a linguistic personality who tends to self-directed study of foreign languages and cultures.

The aim of the study is to assess the results of students' feedback concerning the communicative activities within the e-learning ESP course developed in the Computer Assisted Language Learning (CALL) environment (in our case the Modular Object Oriented Developmental Learning Environment (MOODLE)) where Professionally-Oriented Communicative Language Teaching Approach (POCLT) was accepted as the leading approach.

The CALL environment (in our case MOODLE) has multiple features, including the ability to engage in social networking outside the traditional classroom; a wide range of technological advances and service functions such as wiki, chat, conferences, e-mail, discussions (forums), webinars, interactive and graphical chat, questionnaires, seminars, surveys, a unified registration system and users' statistical monitoring, assessment of students' performance, and feedback in the form of pedagogical interaction.

The development of foreign students' communicative competence in the process of their professional training is presented in the paper by Avdeeva (2006), Avlova (2005). They specify the place of communicative competence in ESP learning by foreign engineering students based on a linguodidactic concept. A study by Goryunova (2004) shows that a high level of development of a worker's communicative abilities supports real psychological contact with colleagues, both with superiors and subordinates. Goryunova (2004) suggests a special system of teaching developmental lessons aimed at the intensification of the communicative abilities of non-language students including sociability, empathy, ability to take the initiative, and activity. Obraztsov & Ivanova (2005) make a contribution to the theory of professionally-oriented foreign language teaching by emphasizing that ESP teaching is not an end in itself, but the means with which students' level of erudition may rise. Pershina (2012) defines communicative language teaching in her work as the process which focuses on the interaction of all participants of the learning process who are aware of the aims they want to achieve and who are able to achieve them despite having limited language and grammar skills. She also analyzes the main aspects of communicative competence, where the skills of maintaining a conversation depending on communicative objectives, and of creating, reading and understanding different types of texts are among the most important.

Pustovalova (2011) defines communicative competence as the individual physiological personality trait which contributes to the efficiency of communication with other people and considers the function of foreign language informing a vocational orientation, the latter is accomplished through the organization of the learning process, the content of the teaching material, and various organizational forms and methods of students' and teachers' interaction.

The problem of development of students' communicative foreign language competence via information technology and multimedia implementation was studied by some foreign and Russian scientists: Canale (1980), Hymes (1972), Chichilanova (2010), Robert (1994), Chernova (2006).

Byram (2001) and Coperias Aguilar (2008) analyze the realization of intercultural communicative competence in the teaching process. Byram (2001) introduces the concept "intercultural communicant".

Scientific interest in the development of communicative competence by students of non-linguistic specialties is closely related with the understanding of the significance of creative activity of specialists in different spheres and situations concerned with cross-cultural communication, business partnerships, and collaborative scientific and industrial work. Our study is focused on professionally-oriented communicative competence which can be considered a particular type of communicative competence and be defined as the ability to acquire scientific knowledge and knowledge of a certain subject through professional communication.

## 2. Methodology

### 2.1. Subjects

The present study was conducted over a period of 2 years (2014-2015). The subjects were 60 fourth year students studying at the Institute of Power Engineering of Tomsk Polytechnic University majoring in “Electrical and Power Engineering”.

The empirical basis of our research is the English for Specific Purposes course taught to fourth year students through an e-learning ESP course.

The following materials were used to conduct the research:

1. The results of ESP teaching of the fourth year students majoring in “Electrical and Power Engineering” using an e-learning ESP course.
2. Data from a questionnaire survey and individual discussions with students.

### 2.2. Setting

The lab where students were studying was equipped with 20 computers, a TV, a DVD player, video-recorders, and discussion tables to accommodate groups of 8–10 students. The sessions lasted 90 minutes and were held once a week.

## 3. Discussion and Results

An important means of developing professionally-oriented communicative competence is the teaching material which forms the basis of the teaching process. Therefore, the subject component is of great importance. The developed ESP course on the module “Electrical systems and networks” includes authentic video materials and different texts, articles, and reports.

The integration of information technology into language learning can ensure successful improvement in students’ communication abilities by making the teaching more learner centered, creating an environment where learners become independent managers of their own learning activity and make their own decisions, while the teacher becomes a “facilitator, moderator, tutor and a resource person” “...rather than the only authority figure in the classroom” (Summaira Sarfraz et al., 2015).

Thus, the role of a traditional teacher as a “knowledge-giver” has changed to a more open role of a guide, “knowledge-manager”, and assistant.

As a result of such learning paradigm, students become better at taking the initiative.

The e-learning ESP course includes not only ESP theoretical material but also graphical video and audio-video material. The use of visual methods by engineering students is directly connected with the necessity to acquire a large amount of highly abstract theoretical material. Graphical methods of presenting information such as tables, graphs, diagrams, and mind maps are useful tools for visualizing, simulating complex phenomena and presenting material in a compact form by analyzing and generalizing it.

The main activities designed for the e-learning course on the module “Electrical systems and networks” included critical reading using e-resources followed by discussion, critical listening and watching using e-resources also followed by discussion, essay writing with peer review, paraphrasing activities using e-resources, paragraph ranking using e-resources, and mind-mapping activities on the basis of reading and listening followed by a presentation. The discussions were conducted in pairs and small groups.

The questionnaire survey conducted during the educational process of the e-learning ESP course on the module “Electrical systems and networks” was aimed at understanding which communication activities were the most encouraging for students from different countries in order to analyze the results and make necessary changes in the e-learning ESP course to better meet the students’ specific needs.

The data collected from the student ranking of activities were analyzed in order to identify the differences in their preferences.

Table 1. Students' ranking of Listening, Speaking and Writing activities (maximum 10 – minimum 1).

Activities	Students from Russia	Students from Vietnam	Students from the Czech Republic
Presentations	7	8	8
Project-based activity	4	7	9
Critical reading using e-recourses followed by discussion	7	6	8
Critical listening and watching using e-resources followed by discussion	5	7	9
Mind-mapping activities on the basis of reading and listening followed by a presentation	9	5	6
Brainstorming in small groups followed by the report of results with a recorded session of students' performance	10	8	9
Abstract writing	4	9	8
Essay writing with peer review	6	9	7
Article writing	4	7	7

The obtained results show a positive attitude towards the activities based on the communicative language teaching approach.

The presentation activity was assessed almost equally positively, since students have a clear understanding of need to acquire this skill which will be required in their future careers.

The project-based activity was aimed at creating a student blog online. This activity was ranked by the students from the Czech Republic as the most relevant and useful because they were confident working in a group with their peers and were aware of how projects are carried out. The opportunity to generate ideas and to precisely plan the responsibilities of each member of the group contributed to a creative project.

Critical reading followed by discussion was ranked by all students as a useful activity. They reported that reading from a computer is easier as they can work independently, following their own pace and using on-line dictionaries to look up some unknown words or phrases. The discussion was also organized in small groups where students with a higher level of English could help their peers who had some problems with speaking.

Russian students had some problems with listening comprehension in comparison with students from the Czech Republic. The use of specialized subject area terms made the task difficult for them. Therefore, some variation, depending on the composition of the group, regarding the appropriateness and usefulness of the activities was also reported.

Mind mapping was recognized especially by Russian students as a very efficient way of presenting information, including all types of diagrams, tables, and graphs. It should be mentioned that different types of information can be represented using mind maps. As an interactive method of teaching, known also as the cluster method, it stimulates cognitive activity, develops memory, and critical thinking. There are three stages involved in mind-mapping. At the first stage students are encouraged to study new topics (the so-called "challenge stage"). At the second stage, called the comprehension stage, students produce new ideas and integrate them with old ones. The final stage is reflection, where only new ideas are produced on the basis of the given material.

As stated by students, brainstorming helps to increase team collaboration. The opportunity to record their performance reveals weaknesses and strengths. Students have the chance to assess themselves and make corrections in their speech.

Abstract writing, essay writing with peer review, and article writing, as the students stated, helps them to become more confident in writing by acquiring experience with different writing strategies. *Writing skills* are also improved by teacher's publishing comments to the students' articles and essays, collaborating with one another in the form of peer review and self-reflection. According to the results of the survey, these types of activities are the least popular among students from Russia.

### 3. Conclusion

The analysis of the student survey shows a positive attitude towards the integration of POCLT in CALL. The conclusion made, however, indicates that students from the Czech Republic and Vietnam prefer creative activities where critical thinking skills are required. Students from Russia are inspired by reading activities based on tests and prefer team work. The use of e-learning ESP course resources leads to an increase in students' motivation for self-directed English learning and readiness to work independently, and instills a sense of responsibility in them; It also helps to enhance critical thinking and decision-making abilities. All the above mentioned shows that the communicative activities which included CALL resources make students' learning a meaningful process, which results in improvement of their professional communication competence. The integration of CALL resources in professionally-oriented communicative activities contributes to the creation of a natural, authentic language environment.

The implementation of POCLT into the education process is not only an attempt to realize all advances proposed by methodologists, but recognizes the necessity to place at the disposal of educational specialists any and all tools capable of enhancing students' communicative competence.

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