## INTEGRATING INTERCULTURAL DIMENSION IN ESP COURSE FOR UNDERGRADUATE IT STUDENTS

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Abstract. Increased interdependent relationship between nations in the modern world requires professionals to be able to communicate effectively with people of diverse cultures. It is generally acknowledged that English is the most important language of the Information and Communication Technology sphere and most IT students will need to use English at work. However, nowadays, an impressive command of the English language is incomplete in the professional IT context, developing intercultural competence is becoming a progressively vital trend. The Latvia University of Life Sciences and Technologies is no exception to this tendency, in order to enhance employability and competitiveness, ESP courses comprising an intercultural dimension are designed for undergraduate IT students. The aim of the present research is to explore ways how promoting intercultural competence can be integrated within an ESP syllabus and to examine students' opinions about participating in the course. Two groups of undergraduate IT students were involved in the experiment. The results of questionnaires and semi-structured interviews indicate that intercultural dimension is viewed by the students as a meaningful integral part of the ESP course and the communicative activities they participated in can develop knowledge, skills and attitudes and in this way promote intercultural competence. The students admitted that the culture-based activities developed problem-solving skills, motivated to take part in discussions and boosted their confidence to communicate in English, and they were useful for the future job as they help avoid intercultural misunderstandings.

Keywords: English for Professional Purposes (ESP), intercultural competence, Information Technologies (IT).

### Introduction

Nowadays, as businesses expand and technology enhances work with companies around the globe, the need to learn intercultural communication has increased. There are many IT companies in which employees represent different cultures, and even though they speak one common foreign language fluently, misunderstandings can appear and seriously affect the performance of the enterprise. Thus, being able to communicate effectively in the foreign language across cultures is an increasingly vital skill in the labour market and potential IT specialists studying at the university should be taught it in the ESP course.

Intercultural competence helps future professionals appreciate workplace diversity, embrace agility and adaptability, avoid disagreements and culture barriers, it enables to cooperate and effectively interact with their foreign customers, broaden job opportunities and establish more resilient interdependent relationship with colleagues around the world [1]. Consequently, the company's performance can improve.

Therefore, intercultural dimension is considered by the authors of this paper as a very significant aspect of professional English language teaching and the aim of the present research is to introduce ways how developing intercultural competence can be integrated within an ESP syllabus and to examine IT students' opinions about participating in the course.

Researchers from a wide range of disciplines have been theorising and empirically investigating the concept of intercultural communicative competence for the last few decades. According to Leung [2, p.519], intercultural competence is the "ability to function effectively across cultures, to think and act appropriately, and to communicate and work with people from different cultural backgrounds either at home or abroad".

Spitzberg & Changnon [3, p.7] state that intercultural competence refers to "the appropriate and effective management of interaction between people who, to some degree or another, represent different or divergent affective, cognitive, and behavioural orientations to the world".

Akizhanova, et.al. [4, p. 345] view intercultural competence as related to the "quality of information about phenomena, as well as the values of another culture" and as a concept including openness to the knowledge of another culture, perception of intercultural differences, psychological attitude, the ability to cope with stereotypes and observance of etiquette rules in communication with other cultures.

Over the last few decades various conceptual frameworks of intercultural competence have been developed and a number of scholars acknowledge that it is constituted by such interrelated primary attributes as knowledge, skills and attitudes [5-9].

The first element of intercultural competence, knowledge, includes cultural self-awareness or understanding of native culture in a global context and recognising that own culture is one of many others in the world and that cultural differences may occur when people from various countries communicate, as culture affects a person's behaviour. It also implies possessing knowledge about economic and political interdependence among nations, global issues, trends and processes, and demonstrating knowledge of other cultures and diverse perspectives, beliefs and values [10].

The second constituent element of intercultural competence, skills, implies using knowledge and alternative perspectives to think critically and solve problems, communicate with other cultures in a range of settings for a variety of purposes, an ability to listen to people from other cultures, observe, interpret and analyse; using foreign language skills and knowledge of other cultures to extend access to information, experiences, and understanding [11].

The last aspect of intercultural competence, attitudes, entails appreciation of the language, art, religion, philosophy of different cultures, accepting cultural differences and tolerating cultural ambiguity, demonstrating respect, open-mindedness, empathy and willingness to discover intercultural opportunities [12].

These three constituent elements of intercultural competence are considered complementary and thus should all be addressed in the professional foreign language teaching. Since the aim of the research is to promote intercultural competence, the authors of the research attempted to design an appropriate ESP syllabus focusing not only on professional English language teaching but also on intercultural knowledge, skills and attitudes' development of undergraduate IT students.

### Materials and methods

To connect education with the realities of the world of work and to highlight the skills demanded in the labour market, an international project under the title "LSP4Employability" (https://lsp4employability.wsb.torun.pl/o-nas/) [13] was implemented in Belgium, Latvia, and Poland. In this project, Latvia was represented by the Latvia University of Life Sciences and Technologies (LBTU). The main goal of the project was to enhance the employability of students through the implementation of relevant e-learning LSP (Language for Specific Purposes) teaching materials, including needs-based recommendations from employers and enhancement of elements that pertain to intercultural awareness.

In the first part of the project the needs of employers for graduates in the labour market of the 21st century were investigated. In 2020 a survey was conducted among employers in European countries with 114 respondents [13]. The respondents worked in international companies of various sectors and represented 9 different countries, with the largest number from Belgium, Latvia and Poland. One of the sections of the questionnaire looked at elements of intercultural communication. The respondents pointed out cultural differences they came across in their daily tasks, and the conclusion can be drawn from the answers that the knowledge of traditions of other countries was needed and should be paid more attention to at the universities. The employers were asked about additional soft skills they look for in graduates apart from the language proficiency. The answers could be divided into the following groups: communication (speaking clearly, ability to listen, speaking and presentation skills, writing); analytical thinking, creativity, interpersonal skills, respect of cultural diversity, teamwork and cross-border team spirit, openness and flexibility. In addition, the answers showed that the universities should devote some time to developing intercultural communication skills by "using multi-cultural teaching approach". The academic staffs' participation in the above mentioned project lead to an idea to integrate the elements of intercultural competence into the ESP course for undergraduate IT students.

Designing a new syllabus for the ESP course, the authors of the research defined its overall goal, which was to help students better understand the process of communicating in the foreign language in the professional work environment across cultures. The accomplishment of this goal contributed to the increased level of intercultural competence and developing knowledge, skills and attitudes necessary for professional communication in IT sphere in English.

To reach the main goal of the course it was necessary to design a motivating, problem-based and thought-provoking syllabus, so interactive methods were chosen urging the students to develop their professional foreign language communicative skills, argumentation, negotiation, presentation skills and engaging them in organised class discussions through group-work and pair work activities, monitoring, facilitating and assessing their performance.

Two groups of first year undergraduate IT students (n = 38) were involved in the experiment. There were 20 students of Computer Control and Computer Science programme and 18 students of Information Technologies for Sustainable Development programme. The students were taught to explore and learn practical terms and expressions (vocabulary and content) as well as various aspects of intercultural communication (verbal and non-verbal) in real life professional settings.

The study was organized in 3 parts. In the first part, students studied according to the ESP Course Syllabus and after the implementation of the program, students were invited to participate in a survey in which they were asked to rate the program on a scale from 1 to 5, where 5 is the highest rating. In the second part of the study, qualitative semi-structured interviews were conducted with five IT students who participated in the program to find out what knowledge, skills and attitudes they have acquired during the course. In the third part of the study, 35 students from the same study groups were involved in the semi-structured interviews, were 12 statements about integration of intercultural dimensions in the ESP course were included.

The course started with a focus on defining the concepts of "culture", "cultural identity", "multiculturalism", "multicultural knowledge society" and laying emphasis on the students" identity and own culture, identifying, describing and discussing key historical milestones in the development of Latvian culture.

The students discussed in small groups what information they would give to people from another culture in order to ease their first trip to their native country or company considering a number of aspects: eye-contact, physical contact when talking to people, addressing people, silence, entertaining. After the group discussion, they wrote a paragraph giving advice to a foreigner visiting Latvia for the first time.

The next topic was Intercultural Conflict and Adjustment. The focus was on introducing the culture of a variety of countries, analysing cultural differences and exploring the patterns of communication in the workplace in various cultures. The students watched videos presenting awkward situations regarding a failure to understand others due to a lack of cultural knowledge and identified what went wrong.

After that, in small groups, the students discussed what cultures and nationalities they work/study with; talked about cultural differences in the habits and behaviour of the people they communicate with; shared with experience if they had ever had any difficulties and conflicts during a meeting or a trip abroad and proposed ways on how to prepare better for such a case.

From there, the course moved to examine stereotypes, and how they could lead to prejudice and discrimination. The students shared with experience of being stereotyped, created a concept map, defined this term and worked out strategies on how to avoid stereotypes in the workplace.

Then intercultural theories were introduced. The students discussed a famous researcher's E. Hall's contribution towards the theory of intercultural communication, his concept of High and Low context cultures [14]. An exploration of Hall's Iceberg Model of Culture followed and, working in pairs, the students placed different aspects of culture in one of two categories: easily recognised – Iceberg's part above the water; and recognised only when very familiar with the culture – Iceberg's hidden part, below the water. For example, in the visible part of the Culture Iceberg there was language, art, music, style, mimic, food, etc., in the invisible part of the Culture Iceberg, there was worldview, religion, respect for authority, status, how friendship is understood, how emotions are managed, values, spiritual beliefs, etc.

Another topic covered by the course was Work and communicating in IT sphere, the students developed tips for successful intercultural workplace communication and discussed ways of how to approach various target groups considering levels of formality, humour, decision-making patterns, perception of time, meeting deadlines, etc. Here they focused on international meetings, negotiations, emailing, telephoning.

As a key aspect of intercultural communication, the topic of Intercultural Encounters and Cultural Shock was also discussed in this course. The students learned to identify different culture shock stages.

They read a number of comments likely to be made by individuals in one of culture shock's stages: Honeymoon, Disorientation, Shock, Adaptation, Adjustment and, working in small groups, identified what stage of culture shock they think the individual concerned was most likely in.

Finally, during two last weeks of the course the students prepared and presented their group project called *What Makes an Interculturally Effective IT Professional*, engaged in peer evaluation, assessed themselves and reflected on their participation in the course. All of the above mentioned in this section procedures are summarised in Table 1 below.

Table 1

Week	Topics	Class Session Coverage	Activities		
1	Introduction	defining the concepts of 'culture', 'cultural	group discussion, brainstorming		
		identity', 'multiculturalism'			
2-3	Cultural	identifying and discussing Latvian key	group discussion activities		
	identity	historical and cultural milestones			
4	Intercultural	discussing cultural differences	case studies, video		
	conflict and		analysis		
	adjustment				
5-6	Stereotypes	discussing stereotypes, creating a concept	group discussion,		
	and prejudice	map and defining 'stereotype'	brainstorming		
7-8	Intercultural	E. Hall's concept of high and low context	vocabulary work, skimming, scanning,		
	theories	cultures			
			group discussion		
9	Culture	dividing aspects of culture into visible and	vocabulary work, pair		
	Iceberg	invisible layers of the Culture Iceberg	work activity		
10-11	Work and	developing tips for successful intercultural	group discussion,		
	communicating	workplace communication; international	workshop on CVs, role-		
	in IT sphere	meetings, emailing	play		
12	Intercultural	learning about culture shock, identifying its	oral report, vocabulary		
	encounters and	stages	work, skimming and		
	cultural shock		scanning		
13-14	Group project	final group projects; peer evaluation, self-	class survey, final quiz,		
	presentation	assessment, reflection on the course	interviews		

#### **ESP Course Syllabus**

### **Results and discussion**

In order to evaluate the effectiveness of integrating intercultural dimension in the ESP course, it was important to examine students' opinion about the implementation of the culture-based activities and practices presented above, therefore the students were engaged in reflection about their participation in the ESP course. There were three stages of the research which are described in this section below.

The first stage of the research involved two groups of first year undergraduate IT students (n = 38) in reflection about the intercultural activities they took part in. They participated in a survey with an aim to evaluate and rate activities of the course as: 1 - "not at all useful", 2 - "slightly useful", 3 - "moderately useful", 4 - "useful", and 5 - "very useful". See Figure 1 below.

Most of the students, sixteen respondents (42.1%) rated intercultural activities as "useful", thirteen respondents (34.2%) believed that activities were "very useful", and nine respondents (23.7%) rated activities as "moderately useful". None of the respondents rated activities as "not at all useful" or "slightly useful". Overall, the students" response to the usefulness of intercultural activities was positive.

The second stage of the research involved qualitative semi-structured interviews administered with five IT students who had participated in the intercultural activities to define their benefits and, in particular, to find out what knowledge, skills and attitudes were fostered in the ESP course. The interviewees were asked what their major achievement was. The answers of students were grouped into knowledge, skills and attitudes developed in the course.

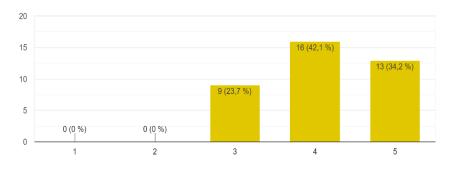


Fig. 1. Usefulness of intercultural activities in ESP syllabus

The following are the students" comments on their major achievement of the course related to *knowledge*.

- "I learned many new terms that would help express my opinion when talking about other cultures, such as coconut and peach cultures, high and low context cultures, Culture Iceberg, etc."
- "I learned there are issues in cross-cultural communication, and how to be prepared to avoid misunderstandings."
- "I definitely increased my vocabulary and also added new knowledge about cross-cultural communication."
- "I learned that each country may have different behaviour, about useful tips for meetings and negotiations across cultures."
- "I mostly revised most of knowledge because I have been in situations and lessons about these things and those are familiar to me already."

Students" comments on their major achievement of the course related to skills are listed below.

- "I learned about different ways to talk to people from other countries, for example, about mirroring behaviours and doing pre-research."
- "I improved my speaking and writing skills."
- "I recognised some differences between cultures. I compared two different cultures."
- "I improved my communication and problem-solving skills."
- "I learned how to find the right fit for different people."

Following are the students" comments on their major achievement of the course related to attitudes.

- "Intercultural communication is more important than I thought before. We need to learn about different cultures, we need to be mindful of others, of their culture religion and customs."
- "I found out that you need to do research about culture before you visit. That being polite and mirroring your intercultural colleagues is actually a good way to boost your communication with them."
- "I developed greater sensitivity to cultures other than my own. Stereotypes should be avoided for positive interaction. Most of stereotypes are inaccurate."
- "I developed a greater awareness of ethical and social concerns, and respect for others."
- "The course increased my curiosity about other countries and allowed me to empathise with people different from myself."

From the above mentioned, it can be concluded that the interviewees' overall impression about the course was positive, they pointed out that they were advantageously influenced as a result of participation in the communicative intercultural activities. The results of the interviews confirm that the IT students view cultural component as an important integral part of the professional English course and believe that the activities can teach knowledge, skills and attitudes, and in this way promote intercultural competence.

The third part of the research focused on the impact of activities on the professional English language learning. On the basis of the semi-structured interviews described in the above section, a survey consisting of twelve statements was designed to gain a more detailed view on the effectiveness of the intercultural dimension integration in the ESP course and thirty-five undergraduate students of two programmes: Computer Control and Computer Science and Information Technologies for Sustainable Development took part in it. The survey results are presented in Table 2 below.

Table 2

Statements about intercultural aspects in the ESP course	Number of students agreed (n = 35)	%	Rank
I found out that cultural differences can affect intercultural communication in the workplace.	18	51.4	8
Activities will help avoid intercultural misunderstandings in my job.	23	65.7	5
I discussed and analysed causes for cultural misunderstandings.	22	62.8	6
Activities motivated me to communicate in English with peers.	29	82.8	2
I learned how to communicate better with others from different cultures in this course.	12	34.2	12
The skills I acquired in this course are useful for my future job.	27	77.1	4
The activities helped me understand my own culture better.	16	45.7	9
The activities developed problem-solving skills.	31	88.5	1
I have more confidence to communicate in English after participating in this course.	28	80.0	3
I developed more tolerance to other people.	14	40.0	10
The tasks increased my curiosity about other countries.	13	37.1	11
I learned to appreciate cultural diversity.	19	54.2	7

### Research results on intercultural dimension in the ESP course

The answers were ranked and the survey results clearly demonstrate the vast majority of respondents believe that the intercultural activities of the ESP course 1) developed problem-solving skills (88.5%); 2) motivated to communicate with peers (82.8%), 3) developed more confidence to communicate in English (80.0%); 4) the skills they acquired in this course are useful for their future job (77.1%), and 5) 65.7% of students stated that activities will help avoid intercultural misunderstandings in their future job.

## Conclusions

Nowadays, the English language is viewed as an international language and a means of intercultural professional communication in the globalised world. Developing students' intercultural communicative competence is considered to be one of the responsibilities of ESP teachers, so integrating intercultural dimension in the professional English course is of paramount importance.

Universities should update old syllabus and integrate intercultural dimension in professional English language teaching, so that students may not only learn English language but also master some basic knowledge, skills and attitudes needed in international professional communication. Therefore, ESP teachers should know the new goals of English language teaching through the new syllabus and pay more attention to promoting students' intercultural communication competence for their future work environment. Motivating, thought-provoking, problem-based communicative activities and practices in the ESP classroom are significant parts for both professional foreign language teaching and fostering intercultural competence.

The effectiveness of the intercultural dimension integration in the ESP course was evaluated through surveys and interviews involving the IT students in reflections on the activities that they had taken part in, which indicated that the experiment was generally successful in both cultural and foreign language attitude domains. Participating in communicative activities and discussing various aspects of intercultural communication the IT students viewed cultural component as an important integral part of the professional English course and believed that the activities were useful as they facilitated knowledge, skills and attitudes, and in this way promoted intercultural competence. The IT students admitted that the culture-based activities developed problem-solving skills, motivated to take part in discussions and

boosted their confidence to communicate in English, and they were important for the future job as they help avoid intercultural misunderstandings.

## Author contributions

All the authors have contributed equally to creation of this article.

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