PROFESSIONAL EDUCATION AND TRAINING OF PHYSICIANS 
AT THE LITHUANIAN UNIVERSITY OF HEALTH SCIENCES: 
THE OPINIONS OF THE LUHS GRADUATES

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Abstract

The increasing significance of science and more intensive cooperation with foreign partners create favorable preconditions for the education and training of good specialists. In view of the renewal of specialty knowledge and the possibility to read the most recent scientific literature in a foreign language and to participate in international conferences with foreign partners, it has become relevant to educate specialists capable of cooperating in scientific and subject-oriented activity when freely communicating in several foreign languages. However, currently, many higher education institutions in Lithuania are reducing the number of hours in the professional foreign language modules. Still, despite the continuous reduction of the hours allocated for foreign language learning, the requirements for the quality of knowledge are actually increasing. For this reason, the teacher faces a problem of how to help a student internalize the required professional knowledge within a short period of time. The aim of the study was to reveal the peculiarities of the expression of integrated practical classes in professional language studies at the Lithuanian University of Health Sciences (LSMU). In search of new possibilities for professional language learning, integrated professional language classes were used for students learning medicine in Lithuanian and a foreign language. During these classes, medical issues were analyzed. The study on the learning process in the integrated professional language classes at the LSMU was carried out in 2014. Data for this quantitative study were collected by using a written survey. The studied population consisted of 2nd- and 3rd-year students of the LSMU Faculty of Medicine. The results of the study conducted at the LSMU when teaching the Professional Language module showed that integrated practical classes of professional language positively influenced the students’ learning and facilitated students’ empowerment for successful professional language studies. The students positively evaluated the contents of the integrated classes, the methods used, and the teachers’ competence. The students’ opinion about the application of the elements of PBL during integrated professional language classes was also favorable. The students were willing to try something new and to learn languages by drawing schemes and maps, discussing medical issues, analyzing problems, and searching for answers to the arising questions.

Keywords: Foreign language; Integrated classes; Professional education; Professional language; Students; University.

Background

Studies at a higher education institution is a student’s preparation to transfer his or her knowledge to a broader context of values and social phenomena, and therefore the study program should allow the student to become involved into the field of various social interests, which can be realized via various studied subjects.
To ensure an effective management of this issue, the study programs should include fundamental as well as applied subjects along with those of the humanities, natural sciences, and other fields (Kraujutaitė, 1998). The leading education programs of engineering, medicine, education science, and other fields in higher education are of a multidisciplinary character, integrating theory and practical activity, stimulating independent learning and problem solving, motivating students to formulate and highlighting the reasons for their actions, providing the students with conditions for group work, and involving them in activities aimed at solving socially significant moral and competence-related issues (Barnett, 1990; Kirikova et al., 2013).

A variety of factors, such as the need for continuously updating specialized knowledge and accessing the most recent foreign literature, and an active participation in international conferences and joint projects with foreign partners emphasize the need for knowing foreign languages and the importance of the education and training of specialists who, instead of limiting their activity to work in a specific sphere, would - through life-long learning - be capable of cooperating with their partners in science and business, communicating in at least one foreign language (Kirikova et al., 2014).

Each Lithuanian higher education institution makes every effort to improve the study process in order to ensure that the graduates become capable of adapting to the continuously changing economical, political, cultural, educational, technological, and other conditions. However, despite the significant interest of the society in language learning, the number of hours allocated for the studies of foreign languages is currently being reduced at higher education institutions. Even though the number of hours allocated for the teaching of foreign languages is dropping, the requirements for the quality of the knowledge are being increased. Consequently, a teacher faces the problem of helping the students master the required knowledge within a short period of time. Would the application of integrated teaching and problem-based learning (subsequently – PBL) empower the students for a more rapid and efficient professional foreign language learning?

The aim of this study was to reveal the students’ attitude towards the integration of the elements of problem-based learning in professional language studies at the Lithuanian University of Health Sciences.

Theoretical aspects of learning during integrated professional language classes

During the modern era of scientific and technical development, knowledge of a foreign language becomes highly important for specialists in particular fields. In the context of the reformation process of secondary schools and universities in Lithuania, the emphasis is placed on the fact that upon graduation, students of higher education institutions should not only be capable of communicating in several foreign languages, but should also acquire skills in communication, critical thinking, understanding of the social context, occupational ethics, professional development and motivation, and life-long learning.

By educating and training highly qualified healthcare professionals, the LSMU strives to ensure that the students acquire the most recent scientific knowledge and learn to communicate in several foreign languages. In many universities, students complete the general university education subjects within the first or the second year of their studies. However, such important skills as critical thinking, creativity, and communication in foreign languages should be continuously improved throughout the studies (Kirikova et al., 2014).

Upon entering a higher education institution, a student starts learning subjects requiring specific competence, which Lipinskiene (2001) termed students’ subject-based competence. When initiating university
studies of a foreign language, a student “brings” certain competence in that foreign language; this competence is clearly defined in the “Standards of General Education”.

Foreign language competences identified by Van Ek (1986) are also applicable in professional language studies: 1) **linguistic competence**, i.e. vocabulary knowledge and learning certain rules of the structure that ensure language coherence; 2) **sociolinguistic competence**, i.e. “the ability to use and interpret language forms depending on the situation”; 3) **discourse competence**, i.e. the ability to understand and formulate coherent and clear phrases in communication; 4) **strategic competence**, i.e. the ability to use verbal and non-verbal strategies for the compensation of gaps in the speaker’s knowledge code; 5) **socio-cultural competence**, i.e. a certain degree of familiarity with the socio-cultural context in which the language is used; 6) **social competence**, i.e. willingness to communicate and self-confidence when communicating with others, knowledge of the rules of behavior, and ability to behave appropriately in social situations.

Thus, considering these competences of foreign language learning, one can state that language learning is more than mere memorizing. Contrary to popular belief, this involves not only memorizing of words and grammar structures, mechanical training of pronunciation, and compulsory text reading using a dictionary. In fact, this is a very close connection between the conscious and the unconscious, between internal language and external language - this is thinking in one or another foreign language (Kirikova et al., 2014).

A teacher’s competence consists of his or her subject-based, scientific, pedagogical, and communication competences (Lipinskienė, 2001). The subject-based competence of a language teacher at a higher education institution is based on comprehensive knowledge of one’s subject. Successful work of a teacher is unimaginable without basic knowledge. Teaching foreign languages at a higher education institution requires deep knowledge about the ongoing changes and a continuous search for new information because live languages are continuously changing, which includes the emergence of new words and expressions, shifts in the use of grammar rules. Scientific activity of a foreign language teacher does not essentially differ from that of other teachers. Like teachers of other subjects, language teachers create, apply, and disseminate new knowledge, and also participate in various research activities. A teacher-researcher requires extensive education, erudition, willingness to improve and search for novelties, a critical approach to scientific literature, deep knowledge of the essence of one’s subject, and familiarization of students with the results of one’s research (Tijūnėlienė, 1998).

The communication competence of a teacher at a higher education institution consists of communication, the ability to work in groups, knowledge of foreign languages, and computer skills. One of the major components of a teacher’s pedagogical competence is knowledge of didactics – i.e. understanding of the didactic systems and application of modern techniques and tools of teaching and evaluation. A foreign language teacher should also know psychology and education management. He or she has to be capable of organizing the pedagogical process with optimal use of knowledge on management, planning, organization, control, etc. because foreign language subjects are complex and require the application of multiple and various teaching and learning techniques to improve knowledge acquisition by the learners (Lipinskienė, 2001).

Thus, a foreign language teacher is no longer seen as a mere source of knowledge. Through knowledge and abilities in foreign language use, experience in the culture of a foreign language community, awareness of and sensitivity to the students’ needs and interests, and understanding of the language learning process, a foreign
language teacher becomes a training supervisor in a classroom, students’ advisor, a participant of the learning process, a warrant of feedback communication, a competent collocutor in a foreign language, an attentive listener, observer, researcher, and a patient person (Kirikova et al., 2014). A comprehensive integrated development of the learner’s personality is one of the principles of modern education. This principle also means the necessity of integration within individual subjects – i.e. internal integration.

During the restructuring of the education system of Lithuania, the strategists especially emphasized the integration of the educational content, presenting such arguments as the holistic concept of the personality and its development, the notion that cognition begins with the whole, subsequently focusing on the constituent parts, that integration may reduce the workload because it helps to avoid repetition, and – most importantly – that integrated learning may significantly help the development of a comprehensively educated, integrated, and balanced personality (Kiliuvienė, 2006). Holistic thinking based on the firm foundations of reality is also one of the ways for a personality to remain integral and maximally solid, and not to lose orientation in the intricate modern reality of the world. This is the aim behind the integration of the teaching content emphasized on various levels (Lukšienė, 1993). Jackūnas (1993) also wrote about the internal integration of a subject – i.e. that knowledge of an individual subject should be internally integrated. This integration is possible due to interdisciplinary relationships and/or internal integration links expressing the systemic associations within the total body of knowledge in a specific field.

The application of integrated professional language classes helps the students to become active participants of the learning process. Through cooperation with their teachers, students become active listeners, active thinkers, and problem-solvers. In addition to that, this helps students keep their attention focused because most of the time they actively work, analyze, discuss, and learn to study independently individually, in pairs, and in groups, which promotes cooperation, self-confidence, and mutual trust within the group. Even though the learners do not always understand everything they hear during listening comprehension exercises, active listening techniques encourage them to ask if they think that something is unclear and to formulate focused iteration or imperative questions (Mačianskienė, 2012).

In 2007, as a result of the reform of specialist education and training, a new educational learning system - the PBL system - was introduced at the Lithuanian University of Health Sciences. Even though this system is currently only applied in the studies of medical subjects, the Department of Languages and Education strives to integrate elements of PBL into the Professional Language module. The PBL system is considered to be more conducive to the development of students’ personalities, compared to the traditional teacher-oriented system, which is more or less dependent on the teaching contents and the teacher’s attitude (Šveikauskas 2005; Beachey 2007). The PBL system helps teachers understand their students better, as discussions stimulate the students to express their opinion, and teachers subsequently improve the contents of the studies taking into consideration the students’ needs (Barman et al., 2007).

Methodology

Sample

Each higher education institution in Lithuania strives to improve the process of studies in order to ensure that their graduates are capable of adapting to the changing economic, political, cultural, educational,
technological, and other conditions. As a result of the reformation of specialist education and training at the LSMU, students can study the Professional Language module (consisting of Lithuanian, Latin, and a foreign language – English, German, or French), and can also select an optional second foreign language course. In the search for new possibilities for professional language learning, integrated classes involving the analysis of medical issues were introduced in the Professional Language module for students who are studying medicine in Lithuanian or in English.

The study on the learning process during integrated classes of the Professional Language module at the Lithuanian University of Health Sciences (subsequently – the LSMU) was conducted in 2014. The studied population consisted of the LSMU students of the Faculty of Medicine. In total, the study included 142 students of medicine. The participation in the study was organized on a voluntary basis – a principle that had to be applied for ethical reasons. This was one of the reasons precluding the use of random samples. During the study, every effort was made to preserve the respondents’ anonymity, which allowed for obtaining sincere responses. Thus, for the aforementioned reasons, this could not have been a randomized sample study.

The respondents of the study were quite homogenous concerning their age – the majority (95.8%) of the respondents were young people up to 25 years of age. Concerning the students’ distribution by sex, 63.4% of the respondents were females, and 36.6% were males. Over one-half of the students (54.9%) studied medicine in Lithuanian, and 45.1% of the respondents studied in English.

Methods

In this study, we applied analysis of scientific literature and documents in order to reveal the peculiarities of the expression of integrated classes involving elements of PBL in professional language studies. A written questionnaire-based survey was applied in order to clarify the future health specialists’ opinions about the peculiarities of the expression of integrated classes involving elements of PBL at the LSMU.

Statistical analysis was carried out by using the SPSS software package. Data analysis included calculations of descriptive statistics and verification of statistical hypotheses about differences between the frequencies of means and the interdependence of attributes. In the verification of statistical hypotheses, the level of statistical significance was set at \( p=0.05 \); Chi-square \( (\chi^2) \) criterion was used to evaluate interdependence between qualitative attributes. Depending on sample size, precise (for small samples) or asymptotic \( \chi^2 \) criterion was used. The normality of the distribution of quantitative variables was verified by applying the Kolmogorov-Smirnov test. The comparison of mean values between two groups was performed by using Student’s \( t \)-test and the non-parametric Mann-Whitney test.

Tool

The quantitative part of the study was a written questionnaire-based survey. The questionnaire was designed by the authors of the study and consisted of 24 items. Three types of questions were used in the study - structured questions, questions with a nominal scale format, and open-ended questions.

Results
The investigation of the respondents’ opinion about foreign language skills acquired during their studies showed that the majority of the respondents (93.3%) evaluated their English language skills as very good or good; meanwhile, less than one-half (41.5%) of the respondents evaluated their French language skills as very good or good, and the percentage of such respondents in the German language was even lower - 18.3% (see Figure 1).

![Figure 1. Sufficiency of foreign language knowledge and skills acquired during the studies](image)

The analysis of foreign language skills in groups of students who studied medicine in Lithuanian and those who studied in English yielded 3 statistically significant (p<0.005) differences in the evaluation of English, French, and German language skills. These results showed that students who studied medicine in English presented better evaluations of their foreign language competences.

The evaluation of the respondents’ attitude towards the sufficiency of the acquired knowledge and skills in professional language showed that a significant part of the respondents (54.2%) thought that they had sufficient knowledge and skills in professional language, and yet 38.7% of the subjects thought that they had not acquired sufficient knowledge or skills (see Figure 2).

![Figure 2. Sufficiency of professional language knowledge and skills acquired during the studies](image)

The comparison of the results between students who studied medicine in Lithuanian with those of students who studied in English revealed a statistically significant difference (p=0.005), which indicates that more students who studied medicine in Lithuanian (69.2%) thought they would not receive sufficient knowledge and skills in professional language, compared to those who studied medicine in English (1.6%).
Further on in the study, we strived to analyze how the respondents evaluated integrated classes – their content, methods, and teachers’ competence. For this purpose, the respondents were asked to evaluate the aforementioned categories on a scale ranging from 1 to 10 points.

The results showed that over one-half of the respondents (64.1%) evaluated the content of integrated classes as very good, and 31.7% of the respondents – as excellent. Nearly one-half of the respondents (45.1%) evaluated the learning techniques used in the integrated classes as good, and only a few respondents (3.5%) – as excellent. Two-thirds of the respondents (65.5%) evaluated the teachers’ competence as excellent, and 7.7% - as good (see Figure 3).

The comparison of the results in groups of students who studied medicine in Lithuanian and those who studied in English yielded 2 statistically significant (p<0.005) differences in the evaluation of the contents of integrated classes and the competence of the teachers who worked in them. The results showed that students who studied medicine in a foreign language (English) presented better evaluations of the content of integrated classes, whereas students who studied in Lithuanian more favorably evaluated teachers’ work during integrated classes.

To clarify the students’ opinion about the elements of PBL applied during integrated classes in professional language, 9 questions were formulated. The results of the analysis showed (see Figure 4) that over one-half of the respondents would like to learn a foreign language by analyzing an emerging problem (63.4%), would like to try something new (62.0%), and would like to learn by discussing medical issues (57.0%). However, only a minority of the students indicated that they would like to learn professional language by applying self-evaluation of group work (16.9%) or by searching for information with the help of modern technologies (35.9%).

**Figure 3. Evaluation of integrated classes**
The comparison of the results in groups of students who studied medicine in Lithuanian and those who studied in English yielded 5 statistically significant (p<0.005) differences in the students’ opinion about learning by searching for answers to questions, searching for information with the help of modern technologies, by drawing maps or mind charts, by independent setting of the aims of learning, and by self-evaluating group work. Even though more students who were studying medicine in English than those who studied in Lithuanian expressed willingness to learn by self-evaluating group work, independently setting the aims of learning, drawing maps or mind charts, and by searching for answers to questions, a statistically significantly decreasing difference was found in the evaluation of professional language learning through the search of information with the help of modern technologies.

**Discussion**

The importance of life-long learning and self-improvement is incessantly growing, and thus the curriculum of the studies of healthcare specialists should ensure their education and training in a way that would allow them to adapt to new changes in their professional activity through life-long learning (*European Health Care Reform, 1997*).

Studies analyzing and generalizing the peculiarities of integrated classes in professional language at Lithuanian higher education institutions are scarce. Studies conducted at the LSMU in 2006 (Kirikova et al., 2008) showed that students at that time had good communication competence – future healthcare specialists indicated that they could easily find on the Internet and read the newest scientific literature in English and to participate in various exchange programs, qualification improvement courses, etc. Generalizing the results of the study conducted in 2014, it can be stated that the current future-to-be healthcare specialists have excellent English language skills as well, but in addition, they can read specialty literature in two foreign languages. However, the respondents currently studying at the LSMU thought that the acquired knowledge and skills in professional language would not be sufficient for their future professional activity.

Studies in this field (Kirikova et al., 2008) showed that traditional classes in professional language insufficiently develop competences that are especially needed by future healthcare specialists – i.e. problem-
solving skills, critical thinking, skills of the formulation and implementation of the aims of learning, and ability to adapt to new conditions of activity. Meanwhile, students positively evaluated the content of integrated classes in professional language. They liked both the content and the teacher’s work during integrated classes. The study conducted in 2014 showed that students would like to learn professional language by analyzing arising problems, would like to try something new, and would like to learn through discussing medical situations. To specify the peculiarities of the education and training of healthcare specialists, further studies are recommended, which would be oriented towards the study process based on the development of problem-solving skills.

Conclusions

When learning a foreign language at a higher education institution, practical classes should be transformed so that they require active listening and brain activity. The active learning techniques may be used to complement rather than to substitute for traditional classes. The students positively evaluate the integrated classes, their content, techniques, and teacher’s competence. Integrated classes in professional language involving students into the solution of healthcare issues and integrating disciplines of various fields of science may help to meet the new and continuously changing requirements for the professional activity of health specialists.

References


