

ASPECTS OF INTERDISCIPLINARITY IN THE STUDIES OF LANGUAGES FOR SPECIFIC PURPOSES AT A HIGHER EDUCATION INSTITUTION

Giedrutė Grigonienė^{1,2}, Aušrinė Peleckienė¹, Irmantas Ramanauskas¹

¹Lithuanian University of Health Sciences, Jankaus str. 2, Kaunas, Lithuania

²Kauno kolegija/University of Applied Sciences, Pramonės pr. 20, Kaunas, Lithuania

Abstract

This paper analyzes aspects of interdisciplinarity in the studies of languages for specific purposes at a higher education institution. Based on research results, we discuss the application of concept theories in the development of interdisciplinarity in the process of the studies of languages for specific purposes. We highlight possible directions of changes in studies, taking into consideration the development of creativity at a higher education institution and emphasizing the relevance of educational innovations that stimulate interdisciplinary cooperation.

Keywords: *interdisciplinarity, languages for specific purposes, creativity, study process, higher education institution*

1. INTRODUCTION

The aim of the article is to validate the relevance of interdisciplinarity in the studies of languages for specific purposes (LSP). In this paper, interdisciplinarity is understood as a result of the cooperation between practicing professionals, teachers of different subjects, and researchers. The significance of interdisciplinarity is supported by the aspiration for the quality of studies, the methodological principles of learning, and changes in the labor market. However, on the academic level, there has been little discussion on the readiness of teachers of higher education institutions to work in an interdisciplinary team, participating in the creation of new knowledge. The use of the term “interdisciplinarity” in scientific discourse started in early 1960s, and the term was then understood as meaning a field of studies, science, or other practices, which involves several different academic, scientific, or artistic subjects and knowledge. In principle, interdisciplinarity means that a person represents his or her subject when solving complex interdisciplinary problems arising in the modern world. Interdisciplinarity provides freedom and possibilities to expand the limits of one’s practice. For a future specialist, the most important skills are new media literacy (i.e. the ability to create and edit audio and video as well as textual material), intercultural communication, and the ability to manage large data streams. The ability to communicate in the language of a “different discipline” is one of the essential characteristics of a future specialist. The increased intensity of specialist mobility is associated with knowledge of foreign languages and cultures.

The transition from the society based on collectivism to one based on individualism and economic principles along with changes in the labor market demand a person to be especially creative. L. Jovaiša (2007, p. 127) stated that the life of a society is determined by “creation – a person’s activity that results in new material or spiritual values that are of social significance”. For this reason, the object of the analysis in this paper is the expression of interdisciplinarity as a precondition for creativity in LSP studies.

The principal aim of the study was to analyze and empirically identify the expression of interdisciplinarity in the process of LSP studies for the development of creativity.

In order to reach this aim, the following objectives were tackled:

- a) Theoretical grounding of the relevance of interdisciplinarity for changes in studies;
- b) Highlighting the possible directions of LSP studies in the development of the preconditions for creativity at a higher education institution.

A quantitative evaluation of the students' opinion was performed. The methods used in this study included analysis of scientific literature, documents, and the results of students' questionnaire-based survey as well as the generalization, interpretation, and systematization of the obtained results of the survey. The study included 175 students of biomedical sciences who were selected for the study by applying convenience sampling.

The paper consists of two parts. Part one surveys social factors that determine requirements for a person and his/her education in the 21st century and seeks to reveal the significance of creativity and interdisciplinarity in studies. Part two presents the analysis of the results of the empirical study on the expression of interdisciplinarity in LSP studies at a higher education institution in the development of creativity.

2. ASPECTS OF INTERDISCIPLINARITY AND THE DEVELOPMENT OF CREATIVITY AT A HIGHER EDUCATION INSTITUTION.

The current period is defined as the period of knowledge society and knowledge economy. In this context, a conflict between personal interests and public good emerges in the analysis of the interaction between an individual and the social environment or between an employee and an organization (Hargreaves 2003). A higher education institution, pursuing the mission of education, should meet those challenges caused by the aforementioned conflict and assume the responsibility for the harmonization of social relationships. However, a higher education institution itself faces the aforementioned challenges.

What position does interdisciplinarity as a precondition for the generation of new knowledge occupy in study programs?

Individual higher education institutions may have specific collections of "reality" and "knowledge", defining studies at that particular institution or a group of students therein.

Complex technologies along with novel production and consumption relationships emphasize the relevance of a person's flexibility and adaptation skills. The novel use of the geographic space especially stresses the importance of a person's mobility, which, in turn, is associated with the knowledge of languages (including LSP) and cultures. The absence of certainty demands continuous learning, critical thinking, and career planning.

One of the characteristics of a postmodern society is the omnipresence of media-generated images that create a safe imitation, which is at the same time a possibility and a threat. The apparent teamwork or cooperation among teachers are examples of safe imitation. A student who is fully capable of functioning in an artificial reality may develop an illusion that he or she would be equally capable of functioning in the real world. However, facing the real world creates the "reality shock", which may result in the loss of creativity and motivation for any activity.

Changes in organizations require changes in the competences of managers and employees, as well as their creativity in certain areas of activity (Večkienė & Veršinskienė 2007). The development of such competences is also required in teachers of higher education institutions. Modern organizations require their members to apply the acquired information in a creative manner. Effectiveness in such organizations is associated with the employee's creativity and mobility, and individualized aims and objectives form the premise of development and stimulate a person's creativity and flexibility. The employee needs to have skills of self-image enhancement, communication, and cooperation. In the organizations of the new generation, development of creativity is becoming the norm.

The analysis of changes in higher education institutions that educate and train future professionals has revealed the importance of the involvement of both students and teachers as well as the creation of conditions and possibilities of choice, and the assimilation of new knowledge and technologies (Večkienė & Veršinskienė 2007). For this reason, the significance of new educational innovations that form a positive approach to the development of creativity is self-evident.

Following the survey of the philosophical concepts of humanism and culturology approaches, we selected Foucault's scientific knowledge technique and his concept of epistemes prominent in the modern European culture. According to Foucault (1994), the modern episteme is defined by highlighting the essence of a person's life, work and language, and professional activity in the modern context. In Foucault's episteme, a language is a complex and independently existing system.

It could be stated that the manifestation of the episteme in a social medium depends on the possibilities of the subject who participates in the process of cognition, education, and activity, and on the creativity of that subject in materializing these possibilities.

Considering the configuration of the episteme defined by Foucault, study programs should include activity that ensures the possibility for construction and modeling, sciences that introduce the learners to natural life, social sciences (economic, management, and political), which acquaint the learners with types of activity, the labor market, conflicts, and rules, and linguistic sciences, which teach the learners how to use signs and their systems and explain senses and meanings.

The recognition of the openness and changes of the human and the world makes the interaction between the teacher and the student a highly complex phenomenon, which may or may not empower for renewal. In such situation, creativity of the teachers of a higher education institution will stimulate the development of the students' creativity. A teacher plans and organizes the aforementioned interaction and ensures the systematic realization of the educational functions. A teacher's activity should meet the requirements of the modern world because through life, work, and language (including LSP), it reflects a certain episteme and value-based attitudes. By involving students into specific activity, teachers also create conditions for the interaction with the environment, and the development of this activity continuously increases the significance of cooperation and interdisciplinarity in the process of the development of creativity.

A higher education institution, as a professional learning community, orients its structure and practice in the following directions: the development of the community members' abilities to "see the big picture" (i.e. the global perspective) and to use modern information and communication technologies, stimulation and development of systematic thinking, and the formation and development of independent self-sustaining work teams in the community.

The concept of a professional learning community is essential in the sense of preconditions for the development of creativity and as well as in the sense of social changes because within the same space, the choice of individualism or collectivism exists. The community constructs essentially new individualism and collectivism, and is the primary social environment where private and public interests are constructed and harmonized, where alternatives are considered and decisions are made, and where initiative and creation are both possible and desirable.

Attainment of these interrelated aims requires teamwork and dialogue between managers, teachers, and students. This is the only way to ensure that the students have possibilities to develop their abilities and to act in interrelated fields of activity – practice, studies, and research. In-class and independent theoretical studies are combined with gaining experience by integrating different ways of cognition. Three essential transferable abilities that are strengthened through studies are dialogue, cognition/discovery, and development. Dialogue helps to develop ethical, partnership-based relationships, to exchange relevant information, and to harmonize aspirations. Two integrating methods (educational strategies) should be employed in studies oriented towards the development of interdisciplinary cooperation: experience-based practical learning and the application of scientific research methodology.

These principles are best revealed in the processes of individual or group independent work and learning practice. The development of research competences aims at empowering a person to see his or her activity as a space where continuous interaction between theory and practice takes place. This forms willingness to initiate and pursue changes in practice based on research results. During the process of studies, informal diagnostic evaluation is performed on the basis of the conviction that the development of learning and activity is not a finite result but rather means that creates additional possibilities for the integration of theory and practice and stimulates activity and creativity.

3. RESULTS OF THE EMPIRICAL STUDY AND THEIR ANALYSIS

In the first part of the study, the respondents were asked whether they used knowledge and skills acquired in the studies of other subjects when studying languages for specific purposes, and whether they applied knowledge and skills acquired in LSP studies when studying other subjects. The most commonly selected response to those questions was “frequently”.

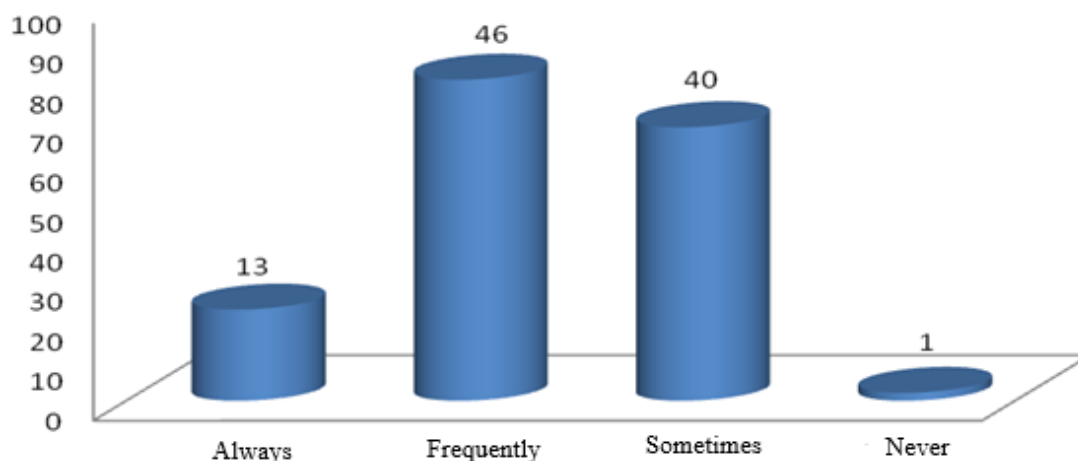


Fig. 1. Frequency of the use of knowledge and skills of other studied subjects in LSP studies

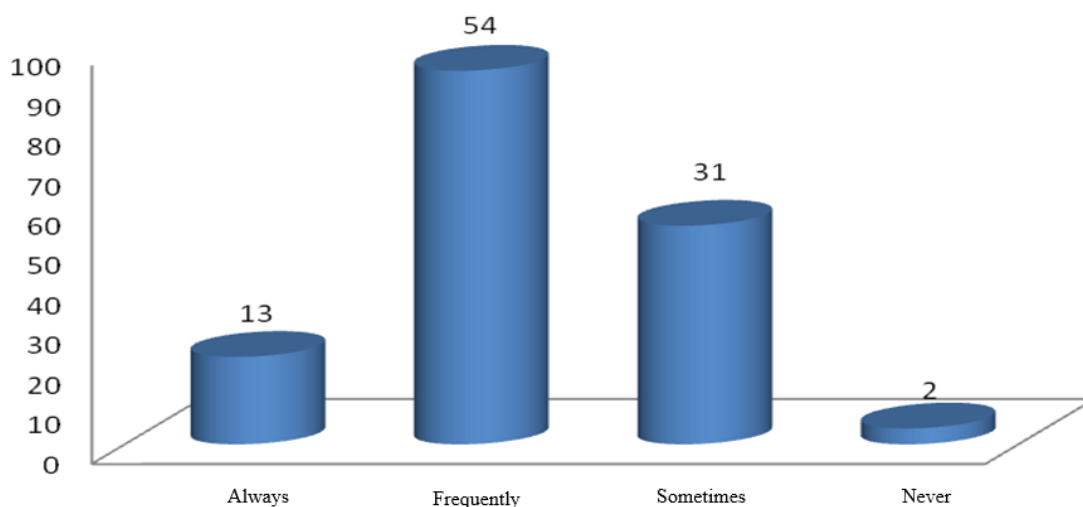


Fig. 2. Frequency of the use of knowledge and skills of LSP in other studied subjects

When asked if during their LSP studies, the respondents encountered problems due to the lack of knowledge because they had not yet studied that particular topic in their specialty studies, they most commonly responded “sometimes”.

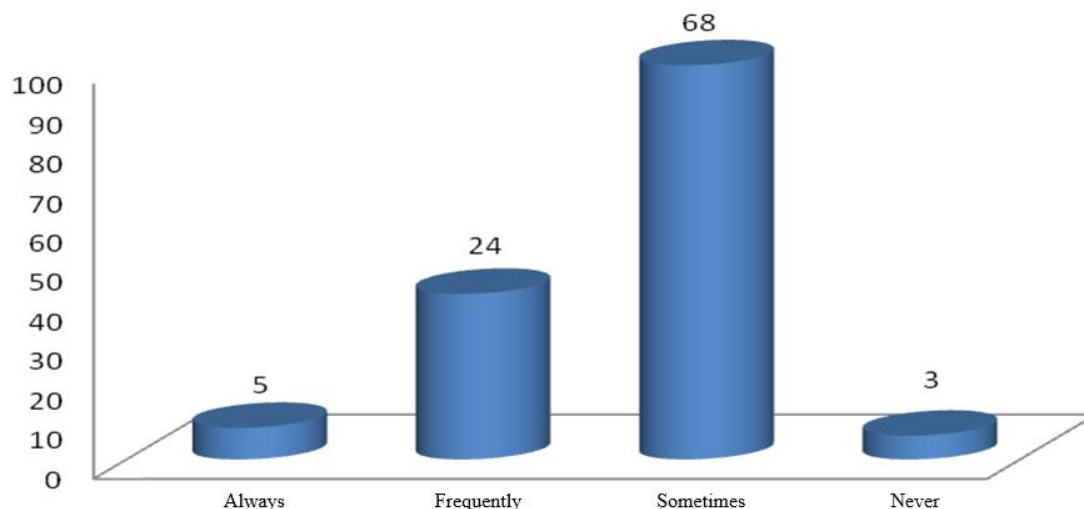


Fig. 3. Lack of specialty knowledge in LSP studies

Further, we asked the respondents to identify subjects whose knowledge and skills they used when studying LSP. Most commonly, the following subjects were indicated: Anatomy - 90%, Drug Technology - 49%, Pharmaceutical Chemistry - 24%, Pharmacognosy - 22%, Pathology and Histology - 14%, Parasitology and Cytology - 12%, Food Product Technology - 11%, IT - 10%, etc. Even though the students mentioned a wide variety of subjects, the frequency of the remaining choices did not exceed 10%. Anatomy was mentioned exceptionally frequently because the majority of the respondents were first-year students, and studies in biomedicine begin with analysis of the composition and systems of the human body.

The evaluation of the methods that the respondents used when applying knowledge of other subjects in their LSP studies showed that the students mostly emphasized work with a book or learning material - i.e. reading academic, scientific, and professional literature.

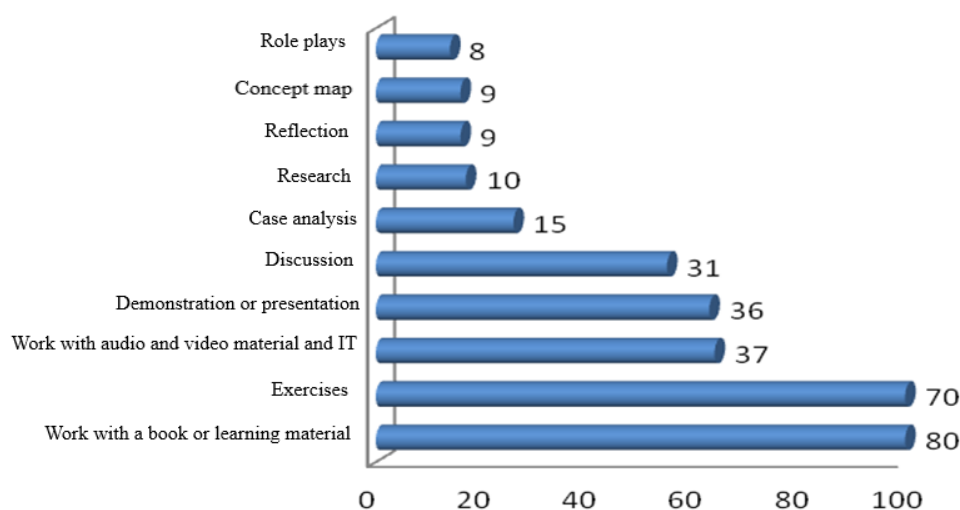


Fig. 4. Methods used for the integration of the knowledge of other subjects into LSP studies

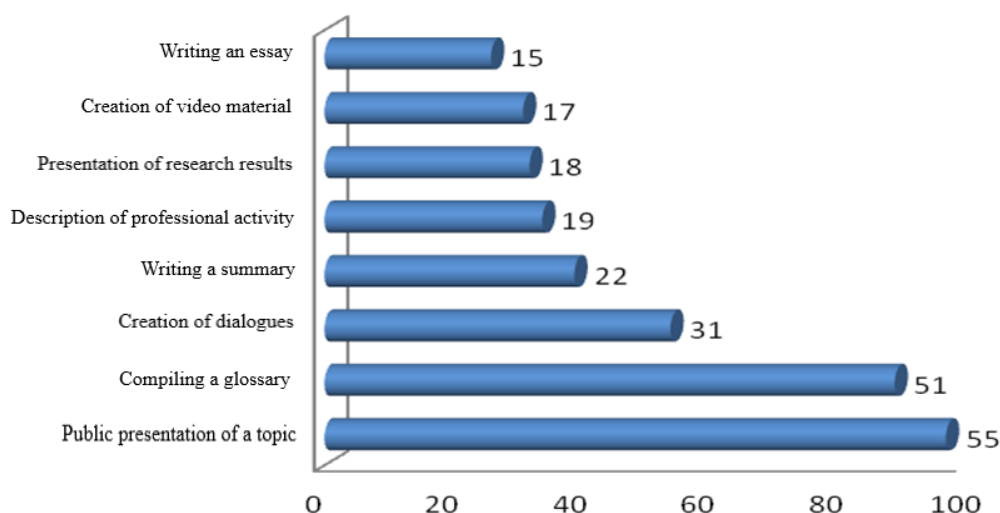


Fig. 5. Assignments performed during LSP studies by applying knowledge and skills of other subjects

The evaluation of LSP assignments that were done by applying knowledge and skills of other subjects showed that public presentation of a topic and compilation of the glossary were the assignments that could not be done without reading professional or scientific literature.

The most important principles that the students adhered to when doing independent work in LSP studies were independence and critical evaluation of information.

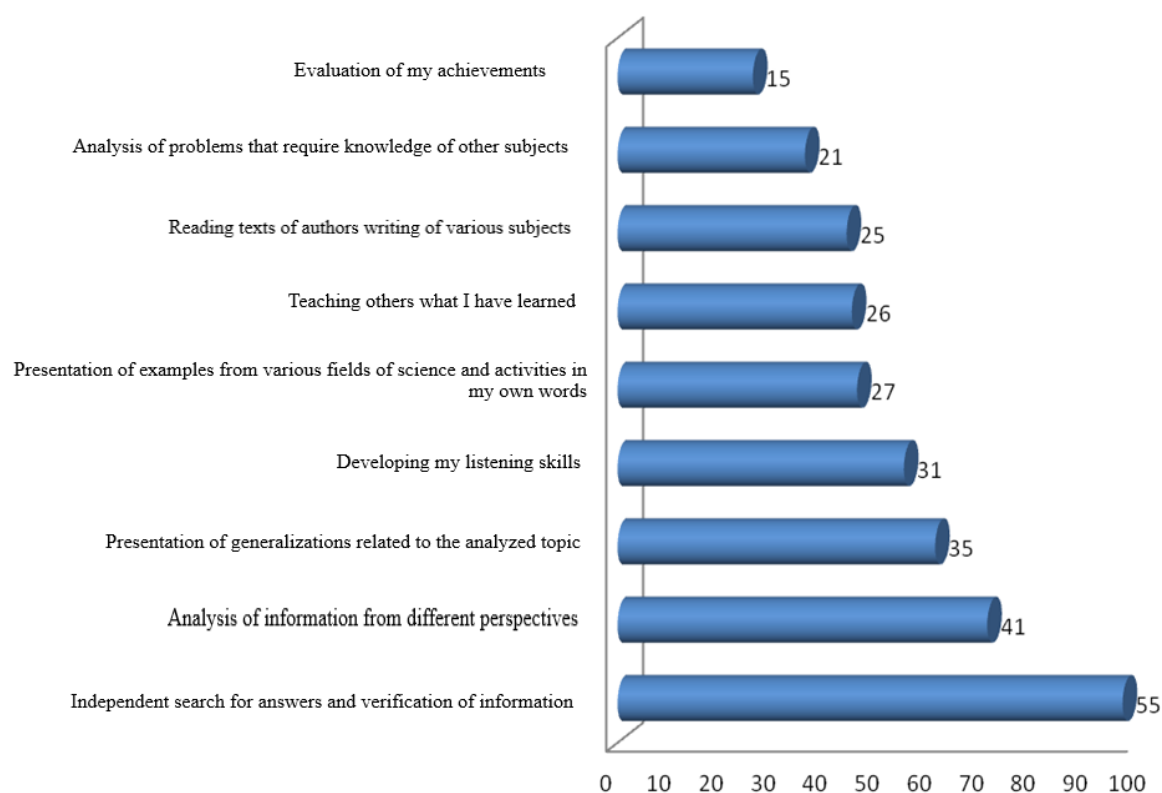


Fig. 6. Principles followed when doing independent work in LSP studies

The analysis of scientific literature and the results of the study showed that during their LSP studies, the students developed the ability to ask questions and to search for and identify problems using knowledge and skills acquired in the studies of other subjects, which enabled the students to understand not only the importance of LSP as an individual subject, but also its use in a variety of practical activities. Language learning through activities may help to develop critical thinking – i.e. the ability to perceive differences between arguments, knowledge, and facts. Problem-based learning applied during the classes stimulates critical thinking and the application of the acquired knowledge.

4. CONCLUSIONS

- The period of social changes results in altered interactions between a person and his or her environment, and those alterations, in turn, form new requirements for the person, raising such qualities as meaningful creativity, critical thinking, and global and individual responsibility and reflection. The opposition between individual interests and public good that emerges in the junction of the knowledge society and knowledge economics gives relevance to interdisciplinarity and a dynamic interaction between the teacher and the student, creating preconditions for creativity.
- In LSP studies, interdisciplinarity is realized through the use of the content and techniques of other studied subjects, as well as concepts, ideas, practical experience, and problem-solving approaches, which are acceptable, suitable, and applicable in professional activity.
- The study showed that the most important interdisciplinary activities in language learning were reading and analysis of academic, professional, and scientific literature, conversations and discussions, written correspondence and written production, projects, and applied studies.

REFERENCES

1. Interdisciplinarity and the 21st century research, 2016. <www.leru.org/files/publications/Interdisciplinarity_and_the_21st_century_research_intensive_university.pdf>.
2. Foucault, MP 1994, *The Order of Things: Archaeology of the Human Sciences*, Routledge.
3. Hargreaves, A 2003, *Teaching in the Knowledge Society. Education in the age of insecurity*, Open University Press.
4. Jovaiša, L 2007, *Enciklopedinis edukologijos žodynas*, Vilnius, Encyclopedic Dictionary of Education Science.
5. Kirtiklis, K 2014, 'Kas yra akademinės disciplinos ir kaip įmanoma mąstyti tarpdiscipliniškumą?', *Filosofija. Sociologija*, , vol. 25, no. 1, pp. 3–10.
6. Lindsay, SM 2009, *Introduction to Nanoscience*, Oxford University Press.
7. Večkienė, N & Saulėnienė, S 2012, 'Tarpdiscipliniškumas kaip studijų sąlyga ir kūrybingumo prielaida.', *Inžinerinės ir edukacinės technologijos : mokslinių straipsnių žurnalas*. Kaunas: Kauno technikos kolegija, no. 1, pp. 107–113.
8. Večkienė, N & Veršinskienė, R 2007, 'Dėstytojų lojalumas organizacijai: teoriniai aspektai', *Profesinis rengimas. Tyrimai ir realijos*, vol. 13, pp. 250–261.