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G I N T A R Ė V A L I N E V I Č I E N Ė

**STUDENTS'
INDIVIDUAL AND
COLLECTIVE LEARNING
IN EDUCATIONAL
ENVIRONMENTS FOR
ORGANISATIONAL
LEARNING**

S U M M A R Y O F D O C T O R A L
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GINTARĖ VALINEVIČIENĖ

**STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING IN
EDUCATIONAL ENVIRONMENTS FOR ORGANISATIONAL
LEARNING**

Summary of Doctoral Dissertation
Social Sciences, Educational Science (07S)

2017, Kaunas

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GINTARĖ VALINEVIČIENĖ

**STUDENTŲ INDIVIDUALUS IR KOLEKTYVINIS MOKYMASIS
ORGANIZACINIO MOKYMOŠI EDUKACINĖSE APLINKOSE**

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INTRODUCTION

Universities have to respond to the needs of society, governments, companies and individuals. The main activities in universities are fundamental or applied research and studies, providing competencies and knowledge necessary for students' professional careers. Therefore, universities should prepare future professionals for collective activities in their future work places – organizations.

Universities which base their ethos on modern educational paradigm practice student-oriented studies. Students and the teacher co-construct the curriculum and peer-learning is employed for deeper learning and better results. The whole study process is based on creating empowering educational environments which engage and stimulate deep learning. According to Salmon (2000), effective university educational environments have to promote collaborative learning, empower deeper learning, engage students in real problem-solving to develop skills that are necessary in real life environments and provide students with the experiences, challenges and opportunities which occur in the 21st century (Chen, 2010).

Despite universities' efforts, labour organizations still declare a lack of graduates who demonstrate sufficient special and general competencies (Wickramasinghe and Perera, 2010), especially those organizations that use knowledge as their main strategic asset – knowing organisations (Choo, 2006). Organizational learning competence is essential for the employees of such organisations. Organizational learning can be defined as an employee's individual and collective knowledge construction that is necessary to fulfil organizational needs and reach its purposes (Yeo, 2007). This learning has to be important to the organisation and occur on individual and collective levels (Argyris, 1972; Johnson, 2007; Jucevičienė, 2007; Mozūriūnienė, 2010). In order for organizational learning to occur, employees have to identify organizational purposes and be motivated to reach them. Universities have to prepare future professionals who would be ready for continuing to learn in order to achieve the purposes of an organisation. To create a study programme which allows developing organisational learning skills, universities needs to define what organisational learning is and how it can be developed using various learning methods. Organizational learning is an object of discussion among researchers of various disciplines. However, none of the disciplines provide a solution for developing organisational learning skills in university educational environments.

Knowledge management researchers emphasise the outcomes of organisational learning – individual and collective knowledge and its place in organisation's knowledge structure – not paying too much attention to the aspects of knowledge formation empowerment. Although some researchers (Nonaka, Konno, Toyama, 2001) admit that environment (Ba) does play an important role for knowledge creation, they do not provide insights as to how those organisational learning environments should be designed to promote

individual and collective learning. Human resource management researchers emphasise organizational learning educational empowerment in work organisations (Abell, Oxbrow, 2001; McElroy, 2003; Collison, Parcell, 2006), defining the aspects of learning efficiency. Usually research focuses on team performance, optimal psychological and physical conditions, and the use of technology to enhance learning. Yet, individual mental processes stay outside of the remit of this discipline. Therefore, educational sciences might provide a more holistic view to organisational learning processes.

Organizational learning is an emerging topic among the scholars of educational sciences. Researchers analysed the organisational learning empowerment in various work environments (Bartholomew, 2009; Steiner, 2009; Leistner, 2010), university teacher's organizational learning (Edintaite, 2012). Yet, there is still a lack of a comprehensive conception of how the university should develop competences which are necessary for successful organisational learning. Traditionally, educational science scholars emphasise educational environments which empower students' individual learning (Jensen, 2000; Jonassen, Land, 2000; Ramsden, 2003; Lipinskienė, 2002; Jarvis, 2006; Biggs, Collins 2014), meanwhile collective learning is perceived only as a method to enhance individual learning (Kay, Dyson, 2006; Janssen et al., 2010; Khatoon, Akhter, 2010; Anaya, Boticario, 2011; Vrioni, 2011; Baloch et al., 2012; Gedvilienė, et al., 2012; Zapatero et al., 2012; Analoui, Sambrook and Doloriert, 2014). Collective learning as a learning purpose is mentioned only in collaborative learning research distinguishing the difference between cooperative and collaborative learning (Johnson and Johnson, 2008; Vizgirdaitė, 2013). Unfortunately, so far students' organisational learning has lacked researchers' attention. Maybe because developing organisational learning competence is a very challenging goal for universities. It requires creating real organizational environments (Munro and Cook, 2008), and even if students feel very engaged in their team performance and problem-solving, they still identify themselves as university students, not as members of an organization (Kahu, 2013). Thus, there is a essential to define how university educational environments that empower students' organizational learning should be designed. Various educational systems, such as collaborative learning, problem learning, service learning can be used for developing organisational learning competence, but there is a lack of a holistic educational system dedicated for this purpose only.

This dissertation is dedicated to answer this interdisciplinary **research problem**: *how should the educational environments for organisational learning be designed to empower students' individual and collective learning with the purpose to develop subject knowledge and organisational learning competences?*

The research object is students' individual and organisational learning in the educational environments for students' organizational learning.

The research aim is to disclose students' individual and collective learning in the educational environments for students' organizational learning.

The research objectives:

1. To substantiate the educational environments for organizational learning that foster students' individual and collective learning.

2. To substantiate the research methodology of the educational environments for organisational learning that foster students' individual and collective learning.

3. To identify students' individual and collective learning in the educational environments for the organizational learning.

The concept of educational environments for the organizational learning is based on the following **conceptual approaches**:

- The learning process is analysed based on: social constructivism (Vygotsky, 1986), emphasising the importance of context and social environment for human learning and recognising each individual as a unique personality with unique learning needs (Kukla, 2000); life-long learning paradigm (Knowles, 1975; Alheit, 2001; Longworth, 2003), acknowledging human learning everywhere and constantly, for the whole life.

- The analysis of educational environments is based on a concept of empowering educational environment (Lipinskienė, 2002, Jucevičienė et al. 2010), emphasising the need of creating enriched purposeful learning environments to achieve the educational purpose. The sequence of such environments empowers learners to develop their competences.

- Organisational learning processes are analysed based on the SECI model of knowledge creation proposed by Nonaka and Takeuchi (1995) which illustrates the dynamics of explicit and tacit knowledge sharing and transformation during individuals' socialisation. During this process explicit and tacit knowledge increase in quantity and quality (Nonaka, 1991). In this dissertation the SECI model is modified with Johnson's (2007) insight that during organisational learning processes individual, usually experiential, learning takes place along with collective learning.

- An organisational learning environment is analysed as the main condition for organisational learning to take place (Nonaka, Toyama and Konno, 2000) which means that in order to achieve organisational learning in the study process, it is necessary to create a context identical to a work organization; effective knowledge creation depends on the enabling context (Von Krogh, Ichijo and Nonaka, 2000); therefore, a labour organization context created for students has to empower, i.e. to help them understand and implement the processes necessary to reach organizational aims (organisational learning among them) within the organization.

The empirical research of the educational environments for the organizational learning is based on the following **methodological approaches**:

- The main philosophical approach of this research is postmodern interpretivism, acknowledging researchers' perception as equally important as the research object itself (Cochran-Smith and Lytle, 2009).
- The strategic approach of the research is a case study, as a detailed analysis of a certain subject and its context (Creswell, 2002). Social problems are analysed in-depth in one or several cases, using a variety of research methods (Stake, 2005).
- Triangulation was applied to achieve research quality, reliability and comprehensiveness. Triangulation was applied for information sources (information was gathered from different stakeholders), research methods (information was gathered using various methods and instruments), and information analysis.

The **logical** sequence of the **dissertation research** (see Fig. 1) matches the formulated research objectives.

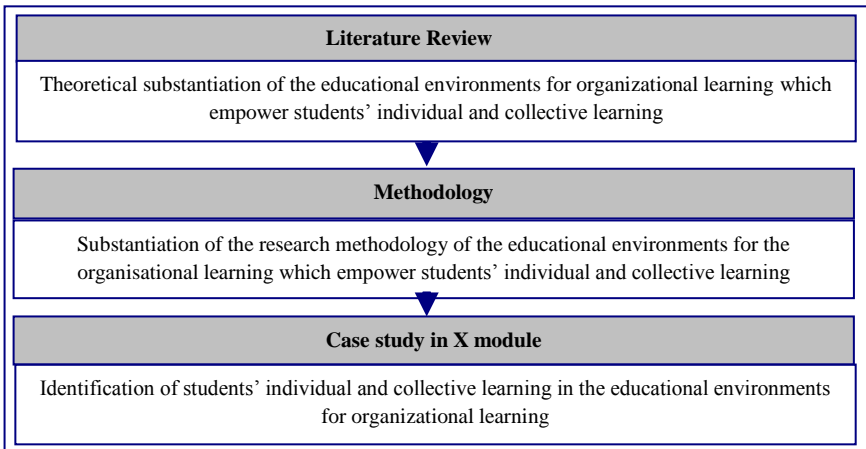


Figure 1. The logical structure of the dissertation research

A review of scientific literature in the fields of management, knowledge management, organisational behaviour, higher education didactics, and andragogics was employed to substantiate educational environments for organizational learning which empower students' individual and collective learning. An analysis of other research and literature was employed to substantiate the research methodology and design.

Empirical research was carried out using two different approaches to data collection. The practical application process of the theoretical model of the educational environments for students' organizational learning (EDENSOL) was analysed based on the reflection-in-action concept (Argyris, Schon, 1987), when the researcher and students were reflecting in action and after action. Qualitative

content analysis was carried out to analyse documents from observation protocols, conversations records, lecture plans, student learning diaries, and interview. The application process is provided as narrative story telling (Heikkinen, Huttunen, Syrjälä, 2007), describing the peculiarities of model application in depth.

The results of the practical application were determined based on students' feedback (Stukalina, 2010), analysing students' interviews, learning diaries, activity logs and other documents. Documents were analysed using qualitative content analysis, both, inductive and deductive approaches.

Scientific novelty and theoretical relevance of the dissertation

- Substantiation and empirical testing of the model of the educational environments for students' organisational learning (EDENSOL).
- Manifestation of individual and collective learning in organisational learning processes, breaking down collective learning into collective group learning and collective organisational learning; definitions of individual and collective learning substantiated in the light of management and educational sciences.
- Defined individual and collective learning in the light of educational sciences and management disciplines.

Practical significance of the dissertation research

- A practical application of the model of the educational environments for students' organisational learning (EDENSOL) allows achieving students' individual and collective learning in university, developing organisational learning skills alongside of subject knowledge learning.
- A practical application of the EDENSOL model could help students to merge to a work environment and give them a substantial background for a successful work in organisations.
- Barriers of EDENSOL application in practice were defined followed with recommendations as to how to apply the model in certain contexts to avoid possible problems.

The structure and volume of the dissertation

INTRODUCTION

1. THEORETICAL SUBSTANTIATION OF THE EDUCATIONAL ENVIRONMENTS FOR ORGANISATIONAL LEARNING THAT FOSTER STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING

- 1.1. Individual and collective learning in educational sciences and management disciplines
- 1.2. Individual and collective learning in organisational learning processes
- 1.3. Educational and learning environments in the university curriculum
- 1.4. Conditions necessary to empower students' organisational learning in the university

1.5. The didactics of educational environments for students' organizational learning

1.6. The design of educational environments for organisational learning in university curriculum to pursue students' individual and collective learning

2. SUBSTANTIATION OF THE RESEARCH METHODOLOGY OF EDUCATIONAL ENVIRONMENTS FOR THE ORGANISATIONAL LEARNING THAT EMPOWER STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING

2.1. Substantiation of the case study strategy and methodological approach

2.2. Empirical research design

2.3. Research data collection methods and instruments

2.4. Organisation of research and research ethics

3. EMPIRICAL RESEARCH OF THE EDUCATIONAL ENVIRONMENTS FOR ORGANISATIONAL LEARNING THAT EMPOWER STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING

3.1. Research context

3.2. Analysis of the case study of educational environments for students' organisational learning design in the university study module

3.3. Research discussion and recommendations

CONCLUSIONS

Recommendations

References

Annexes

The dissertation consists of an introduction, three parts, conclusions, recommendations, a list of references, a list of author's publications and annexes. The volume of the dissertation is 150 pages (without annexes). The dissertation presents 15 figures, 12 tables, and 7 annexes. The list of references contains 323 sources.

AN OVERVIEW OF THE DISSERTATION CONTENT

1. THEORETICAL SUBSTANTIATION OF THE EDUCATIONAL ENVIRONMENTS FOR ORGANISATIONAL LEARNING THAT FOSTER STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING

1.1. Individual and collective learning in educational sciences and management disciplines

There is a discourse of learning definitions in **educational sciences**, as there are many different philosophical approaches defining individual and collective learning. In educational sciences, the concept of learning in an interaction with others is a relatively new research object (Gilles et al., 2008). Usually, learning is understood as individual activity where interaction with

peers might be used as a method for individual learning enhancement, and individual competence development is the main focus. Meanwhile, there is a lack of insight on how collective learning affects the entire group of learners, as well as on how collective knowledge and competence develops.

In the discipline of **knowledge management**, individual learning is defined as learning through daily work functions and problem-solving (Koskinen, Lyles, 2011), whereas collective learning is understood as group learning leading to collective meaning structures (Dixon, 2000) also referred as common understanding (Beers, et al., 2005). Common understanding is constituted of collective knowledge and knowing (explicit and tacit knowledge) (Vera, Crossan, 2003) which are the main focus of knowledge management.

In the light of educational science and knowledge management disciplines, in this dissertation *individual learning* is defined as a change in individual knowledge that results in an individual competence development. *Collective learning* is defined as a change in individual and group knowledge that results in increased individual and group competence.

1.2. Individual and collective learning in organisational learning processes

According to Dixon (2000, p. 6), organisational learning is ‘a conscious learning process implementation on an individual, collective and systematic level, for continuous organizations’ transformation into a direction that is increasingly satisfying its stakeholders needs’. Therefore, organisational learning is associated with organization’s purpose and its achievement processes. According to Koskinen (2012), organizational learning is often conceptualized as a process by which organizations develop rules, procedures, and routines for solving recurring problems.

Nonaka and Takeuchi (1995) discovered that organizational knowledge creation is a cyclic process which can be illustrated with the organisational learning model, the so called the SECI model. Tacit knowledge is usually constructed in the socialization phase, when employees create common (collective) tacit knowledge in work processes and interaction. In organisations, problem-solving is usually not an individual process but rather involving all collective actions in departments or groups; collective knowledge of the group or department verbally expressed and shared in the externalisation phase. Yet, not all scholars agree that only collective knowledge is created in this phase. According to Johnson (2007), in this process, the same as in all other SECI phases, individual experiential learning occurs, which creates individual knowledge alongside collective learning. Organisational level problems promote interested individual employees or groups to summarize knowledge (expressed, gained or created) by formalizing it on the level of the entire organization. This is called the combination phase in SECI model. This phase results in new rules,

norms, and procedures. Knowledge that is created by the entire organization (norms, procedures, rules or technologies) is clear to employees and becomes their own. The SECI model identifies this as the internalization phase. In this way, the employees' collective knowledge (accepted and embedded in work activities) and teams become like the engine for organizational performance improvement.

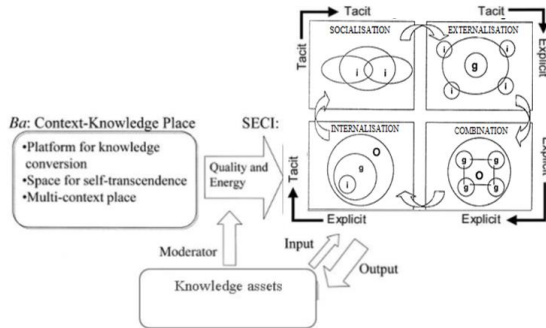


Figure 3. The process of knowledge creation (Nonaka, Reinmoeller, 2000)¹

The SECI model was improved by adding specific contextual action environments to each phase (socialization, externalization, combination, internalization) by Nonaka, Konno and Toyama (2000), naming it *Ba*. According to them, to enhance knowledge construction, it is necessary to create certain environments in each phase. The organisational learning processes in the socialization phase are conditioned by the *originating Ba*, where the conditions for co-workers to communicate and cooperate, stimulating the feeling of being ‘together’, are created. The externalization phase must take place in the *dialoguing Ba*, where conditions for dialogue and discussion, for members of the group accordingly develop common and collective knowledge, are created. The combination phase takes place in the *systemizing Ba*, where organizational knowledge is systemized to ‘official’ knowledge (rules, regulations, etc.) by individuals or groups. The internalization phase takes place in the *exercising Ba*, where the ‘official’ knowledge is disseminated to the departments of the organization or individual employees and applied in their activities.

Ideally, in the SECI cycle, knowledge is transferred from one phase to another, so employees can use that knowledge in the next phase adding value to the organization. This kind of knowledge is called ‘knowledge assets’. There are three levels of learning in the organisational learning structure: individual learning (I) that results as individual knowledge (IK); collective group learning that results as collective group knowledge (CgK); and collective organizational

¹ I – individual, g – group, O – organization.

learning that results as collective organisational knowledge (CoK). As a result of every SECI phase, knowledge assets can be filled with individual, group and organisational knowledge.

1.3. Educational and learning environments in the university curriculum

The design of effective learning environments in higher education has been an object of many scholar works (Lipinskienė, 2002; Skelton, 2002; De Corte, 2003; Vermunt, 2003; Tautkevičienė, 2004; Jucevičienė et al., 2010; Jonassen, Land, 2012). These environments allow learners to recognise the necessary information and assimilate it in a form of knowledge, creating new knowledge. Yet, not all surrounding learning environments can be recognised and assimilated by learners to transform it to their personal learning environments. Therefore, organisational learning in the study process requires intensive educational guidance, i.e., a creation of educational environments. According to Juceviciene et al. (2010, p. 99), an educational environment is ‘a dynamic informational learning environment, purposefully created and impacted by an educator and the learning purpose, accordingly with corresponding content and educational forms, methods, ways, objects or subjects which influence the educational information or its communication to the learner. In other words, it is the environment conditioned by clear educational purpose and defining the ways (methods, tools, content) how to achieve it. Educational environments can be constituted of recognised official purposefully designed curriculum and hidden curriculum that emerges in student interaction.

1.4. Conditions necessary to empower students’ organisational learning in university

There are certain conditions necessary for students’ organisational learning to take place in university which can be named as internal and external managerial factors. External managerial factors include the overall country or region higher education policy, university’s policies, the philosophical approach of study programmes. Meanwhile, internal managerial factors manifest as the teacher’s and students’ qualities. To design the educational environments for students’ organisational learning, the whole study programme can be based on any paradigm, but the optimal would be interaction or modern learning paradigm. To acquire organisational learning skills, students need to be able to be self-directed learners and have enough skills to learn in various environments. A teacher needs to maintain an empowering teaching style and have enough skills to work in organisational learning environments.

1.5. The didactics of educational environments for students' organizational learning

In order to develop life-like organisational learning skills, the educational environments for the organisational learning have to be designed based on modern didactic systems. One of the main conditions for organisational learning to take place is students' interaction and learning towards achieving one goal (Vizgirdaitė, 2013). Therefore, collaborative learning is a crucial element in the educational environments for organisational learning design.

Another important aspect of organisational learning is problem-solving (Jonassen, Land, 2012). Therefore, the educational environments for organisational learning have to be based on problem-learning. To enhance students' motivation, solving a socially significant problem has to be beneficial for various stakeholders. Therefore, service learning (Jacoby, 1996) can be used to motivate students to put effort to pursue one goal. Forming a real students' organisation can be a perfect platform to develop organisational learning skills along with subject knowledge.

1.6. Design of the educational environments for organisational learning in university curriculum to pursue students' individual and collective learning

Students' organisational learning can be empowered in a sequence of four complex educational environments, the so-called the educational environments for students' organizational learning (EDENSOL) model (see Figure 4). The EDENSOL model phases are original and correspond to the logics of the curriculum design as preparation for learning, learning and assessment:

1. *Educational Environments for Students' Organizational Learning Empowerment*, where students are empowered to perform in organisational learning environments, by using and developing their competences necessary for organisational learning.

2. *Educational Environments for Students' Organizational Learning Enabling*, where a group of students is enabled to work and practice organizational learning in a real problem-solving organization.

3. *Educational Environments for Empowering Students' Organizational Learning Cycle*, which empowers students' organizational learning processes, resulting in students' organisational learning competence development.

4. *Educational Environment for Students' Assessment*, where formative assessment takes place emphasizing students' whole learning experience, individual and group achievements.

Moreover, every component of educational environments for students' organizational learning is explained.

I. Educational Environments for Students' Organizational Learning Empowerment. Student empowerment for organisational learning can be defined as a provision of sufficient knowledge, attitudes and skills necessary to

enable students' efficient work in educational environments for organisational learning helping them understand the module learning purposes and motivate them. This consists of meta-learning skills, deep-learning approach, and self-directed learning approach; collaborating learning skills; organization management knowledge (Juceviciene and Valineviciene, 2014).

Educational environment sequence for students' organizational learning introductory empowerment constitutes of:

1. ***Introduction of the module/course programme.*** Students need to be provided with a clear and motivating learning purpose. According to Juceviciene et al. (2010, p.75), 'the formulation of the educational purpose should be bi-directional: the content that is necessary to be learned should be defined and at the same time, its benefits to a person should be highlighted'. There are two major learning result groups: a) subject-specific content learning (specific knowledge and skills); b) generic skills (including organisational learning) development. Therefore, a full and clear structure of study purposes, the path to achieve it (especially organisational learning tasks) and the corresponding structure of learning assessments are the core elements of such introductory educational environment.

2. ***Evaluation of prior students' organizational learning experience.*** It is necessary to identify students' prior organisational learning experiences and attitudes, as it can have a huge effect on the learning process. It is recommended to review and evaluate the overall group members' experience of prior organisational learning using the interview method, tackling possible knowledge gaps or old mental models that students have.

3. ***Students' preparation for self-directed learning.*** The development of subject-specific and organisational learning competences requires students to be self-directed learners. However, usually the level of student preparation to be a self-directed learner varies. A provision of the essential knowledge about self-directed learning is a necessary step. The very essence of self-directed learning consists of three parts: the ability to plan and adjust their learning path, the selection of the most appropriate learning methods corresponding to their learning styles, and the ability to identify the changes in their competence in various learning situations, capturing it in a competence portfolio or a learning diary (Loyens, Magda and Rikers, 2008). Moreover, students need to learn how to apply collective learning methods (Ramsden, 2003), to understand the main problem-based learning and project-based learning steps.

4. ***Development of students' understanding of the principles of modern organizations.*** It is likely, that not all the students may have prior work experience. Therefore, it is necessary to provide some concentrated knowledge about organizations, their structures, functions, and, especially, organisational learning, combining individual and collective learning. In modules where management is not the main subject, the management knowledge of modern

organizations can be integrated and taught additionally. Before starting the second stage of the EDENSOL model, it is useful to make sure that students have a sound understanding of the principles of modern organizations, especially organisational learning. The educational environment for student interaction with a more experienced peer (or lecturer) could be a useful way to detect and develop students' understanding, helping to highlight the main points of organisational learning and its application in the study practice.

II. Educational Environments for Basic Empowerment of Students' Organizational Learning. These environments are created to empower students' organisational learning by providing guided experience in a real students' organisation. Firstly, students are given a complex study assignment.

1. ***Problem-based study assignment for organizational learning.*** The 'subject content' of the assignment is a complex problem that requires interdisciplinary or even multidisciplinary knowledge. The 'method' is a real students' work in a specially created organisation based on the principles of collaborative, service and problem-based learning. Meanwhile, the 'learning outcomes' are: a) an individual and collective development of the organisational learning and subject-specific competences; b) a solution of the particular problem. The study assignment has a 'triple purpose':

1. *To solve the practical problem* (given as a specific task). The aim is to develop students' knowledge and competencies through problem-solving activities. The problem derives from a significant problematic situation concerning public communities. The solution must be finite and provided as the final report which should be publicly presented to whom the problem-solving is being addressed, and evaluated by social partners and teachers.

2. *Practice organizational learning.* The problem-based study assignment is carried out by creating a project organization with its own structure, leaders and processes necessary for organisational learning to take place.

3. *To practice and develop the subject-specific and organizational learning competencies.* Students work on the basis of their already-existing or newly-constructed collective and individual knowledge. The growth of students' competences should be continuously captured while carrying out the project assignment. The expected results are: a growth of subject-specific and organisational learning competencies captured through students' self-reflections in learning diaries (Clipa, Ignat and Stanciu, 2012) and students' competence portfolios, containing competences (collective and individual) developed in project activities proved by learning artefacts. All three objectives require students' engagement, but the main point of the study assignment, is problem-solving, helping to achieve other study objectives.

2. ***Problem-based study assignment solution projection.*** In this stage, students have already gone deeper into the essence of the problem and have a subject-specific sense of what steps need to be taken to solve the problem, thus

they are able to decompose (break) the solution path of the problem into specific activities necessary to be carried out. Managerial aspects of the solution to the problem are carried out by creating a project organization that fosters organisational learning development. These educational environments are conditioned by the methodology of implementation of the assignment and based on students' self-study with consultations from a teacher.

3. The structure, roles and activity planning of the projects organisation.

The students' organization has to have all the features of an organization: (1) be a social unit, which (2) operates to achieve the objectives, (3) designed as an operational structure, and (4) relates to the external environments (Kirst, Ashman and Hull, 2014). The students' organisation has to have a defined project-based organizational structure, communication flows and responsibilities; it has to be composed of several divisions with their leaders accountable to the head leader. The organizational culture and behaviour should be based on the principles of collaboration and collegiality, prevailing transforming leadership style. It is important that the leader of the whole project organization is a person who already has project management and organisational learning experience and authority among students. If none of the students hold such an exclusive mix of competences, the teacher can be delegated to take the head role, acting as a liberal leader coordinating the activities in all departments through a consensus.

III. Educational Environments for Empowering Students' Organizational Learning Cycle. The cyclic process of organisational learning in the project organization is based on the improved SECI model by Nonaka, Toyama and Konno (2000) (revealed in the subchapter 1.2.). In EDENSOL, each organisational learning phase is modelled with the relevant educational environment for organisational learning, having corresponding features of Ba environments adapted to problem-solving process and enhanced with an educational impact.

Socialization phase and originating educational environment. According to McInnis (2001), students identify themselves as members of an academic community through collaborative learning experiences with other students. Therefore, it is essential for students to have common activities because, according to Sovajassatakul et al. (2011), students experience the effect of 'social glue' when they act or spend time together.

Originating educational environments include methods and tools that allow students to spend time together, preferably in dedicated environments, to promote self-identification with the organization and peer-learning.

Externalization phase and dialoguing educational environment. In this stage, students' verbalized knowledge is used in group discussions and constructs the groups' explicit collective knowledge. Therefore, dialoguing educational environment requires students' participation and discussion in the department meetings, informal meetings and other common areas. Students'

reflections are particularly important during this phase allowing interpreting knowledge. Therefore, educational environments should be arranged for students to freely discuss their work issues. Collective knowledge is created in these discussions which leads to common understanding. Therefore, in the externalization phase it is very important to create favourable psychological and physical conditions for students' discussions.

Combination phase and systemising educational environment. In this phase, it is essential to maintain the right conditions to accumulate common knowledge on the organizational level. In the students' organization that means: a) all organization units' discussion takes place, making consensus decisions on selecting the most suitable options; b) continuous discussions on several alternatives of possible decisions need to be incorporated into one single solution; c) all members agree on the final decision and its place in the activity plan of the project organization. Systemising educational environments has to be designed to foster all meeting of the student organization, the ability to verbalise and capture the organization's decisions, to disseminate the results to the whole organization.

Internalization phase and exercising educational environment. Internalization takes place when explicit collective organizational level knowledge is converted into tacit knowing (through learning activities) embedding this knowledge in group activities. This new knowledge changes the mental models of organization members (Juceviciene and Mozuriuniene, 2009). It is important that each group and individuals accept the decisions and their activities are based on the new decisions of the organization. Successful internalization processes in the organization also require learning such conditions as student joint activities, informal education, and students' trainings on the organizational level.

Knowledge Assets. Knowledge assets are contained from explicit and tacit knowledge. Tacit knowledge is embedded in the employees' experience and actions as knowing. There is always tacit and explicit knowledge in the structure of a competence. In a context of EDENSOL, it is not very important what kind of knowledge is stored in particular knowledge assets. However, it is important for its content to be constantly filled with sufficient knowledge to be used in all organisational learning phases.

IV. Educational Environments for Students' Assessment. According to Hunkins and Ornstein (2012), the arranged educational activities – in the university and beyond – are elements of curriculum. Assessment methods are usually educational by nature (Gedviliene, 2014), where assessment allows students to develop and self-evaluate their competences in the process of assessment. The end result of this stage is overall student assessment with the final grade based on cumulative index. At the end of the module, the final report evaluation of the educational environments in the project organization has to be

held in solemn environments, involving social partners who are connected with the project. All students have to be prepared to present their collective outcome of the project in an oral presentation. It is recommended that the jury included relevant social partners and teachers asking questions to enhance discussion during the presentation.

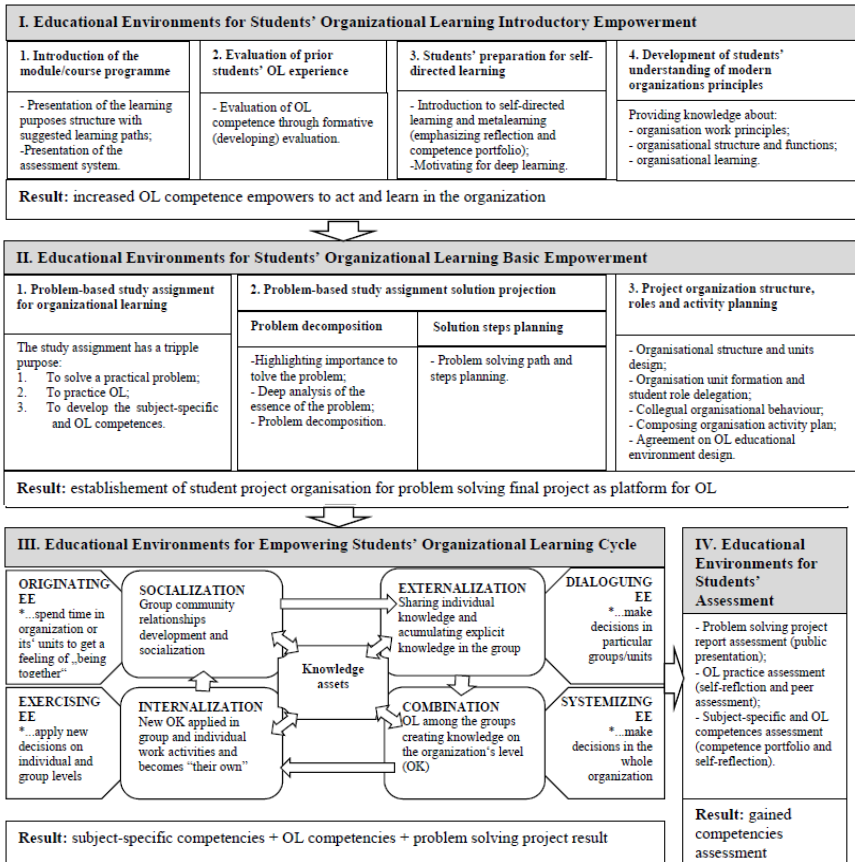


Figure 4. The model of educational environments for students' organisational learning (EDENSOL)²

A case study of EDENSOL model implementation in a university curriculum is provided in the following chapters of this dissertation.

² EE – educational environment, OL – organisational learning.

2. SUBSTANTIATION OF THE RESEARCH METHODOLOGY OF EDUCATIONAL ENVIRONMENTS FOR ORGANISATIONAL LEARNING WHICH EMPOWER STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING

2.1. Substantiation of the case study strategy and methodological approach

According to Løkke and Dissing Sørensen (2014), in social sciences, a case study can be applied as a research method to verify the theoretical construct in practice. In this research a descriptive case study method was applied to analyse the EDENSOL model application in practice, in the particular university study module, in order to disclose the application process and results of EDENSOL. The study aims to answer these questions:

- *How-to?* (the process). How were the EDENSOL educational environments designed in the particular case?
- *What's the result?* (the result). What results were achieved after every EDENSOL model phase?

The '*How-to*' process description is provided in a style of educational narrative (Heikkinen, Huttunen, Syrjälä, 2007) through researcher reflection in action (Argyris and Schön, 1978) based on participatory inquiry (Lincoln, Lynham, Guba, 2011) approach. *The result* of every model implication phase is defined based on students' feedback gathered using a semi-structured interview, students' learning diaries, and focused group discussion. A mixed (inductive and deductive) qualitative content analysis approach was applied to structure research data.

2.2. Empirical research design

The EDENSOL model is designed as a sequence of phases; therefore, research design is built around the initial model, revealing the application and its results of the each EDENSOL phase. Most of the information gathering methods are incorporated in the EDENSOL model itself, but to pursue subjectivity and full view, additional information gathering methods were added in order to gather students' feedback.

The Educational Environments for Students' Organizational Learning Empowerment application phase research focuses on detecting an increase in students' organizational learning competences:

- Self-directed learning (knows how to plan his/her learning; applies meta-learning skills; is motivated or deep learning);
- An understanding of modern organization principles (student has experience working in a modern organization).

The Educational Environments for Students' Organizational Learning Enabling application phase research focuses on detecting whether the students' organization has all features of an organization:

- The activity of the organization is purposeful;
- Organization has an organizational structure and work divisions;
- Organization interacts with external stakeholders;
- Members of the organization (students) identify themselves with the organisation.

The Educational Environments for Empowering Students' Organizational Learning Cycle application phase research focuses on detecting whether organisational learning took place in different SECI phases on three levels:

- Individual (I), where every student formed their personal learning environments;
- Collective group (Cg) level, i.e., learning in departments and groups;
- Collective organisational (Co) i.e., learning as a whole organisation.

The Educational Environment for Students' Assessment application phase research focuses on detecting whether students have developed organisational learning competences along with subject-specific competences.

In each research phase, triangulation of the information gathering methods was applied.

2.3. Research data collection methods and instruments

Research data was collected using the methods already incorporated in the EDENSOL model, such as a semi-structured interview (to detect previous student organisational learning experience), students' competence portfolios and learning diaries (to evaluate students' learning progress), 360-degree self- and peer-evaluation (used as assessment measuring students' organizational learning), discussed in subchapter 1.5. In addition to those methods, the information was gathered using observation and focus group discussion. All these methods allow disclosing the peculiarities of the EDENSOL model application from different perspectives. Meanwhile, student feedback-based methods allow determining the result after the each phase.

2.4. Organisation of research and research ethics

The selection criteria of a study module suitable to apply the EDENSOL model are revealed as conditions in subchapter 1.3. Using convenience sampling, a module *'Learning In Knowledge and Informational Society'* which is taught as an introduction module in *'Education'* and *'Educational Technologies'* study programmes at Kaunas University of Technology was selected. This module meets all the necessary conditions for EDENSOL application, because of the module content and lecturer's deep competence in the fields of educational environments and organisational learning.

Case study reliability. The non-probability research sampling may raise doubts about research reliability. Nonetheless, according to Shenton (2012), research reliability in case studies can be assured by applying the following principles:

- *Relevant selection of methods.* In this dissertation there are several data collection methods applied to assure data collection from different sources and perspectives.

- *The researcher is well familiar with the research environment.* The author of this dissertation acted as a lecturer's assistant and was involved in all the EDENSOL model application processes.

- *Triangulation applied.* The research design is based on researchers' and students' feedback, several research data collection methods applied.

- *Research data is cross-checked.* To avoid subjectivity, all the research data was cross-checked with data from other data sources.

- *Research context is provided.* Subchapter 3.1. is dedicated to reveal the context of the research.

Research ethics. Because this case study is based on participatory inquiry, it is important for the researcher to keep research ethos, keep an objective position, provide an evidence-based opinion, and ensure research reliability. All research participants were informed about the purpose of the research, acted voluntarily and with consensus. Students' feedback data collection and analysis was conducted with respect to students' confidentiality.

3. EMPIRICAL RESEARCH OF THE EDUCATIONAL ENVIRONMENTS FOR ORGANISATIONAL LEARNING THAT EMPOWER STUDENTS' INDIVIDUAL AND COLLECTIVE LEARNING

3.1. Research context

External conditions context. The EDENSOL model was applied practically in a module '*Learning In Knowledge and Information Society*' which is taught as an introduction module in '*Education*' and '*Educational Technologies*' study programmes at the department of Educational Studies, at Kaunas University of Technology. This department has over fifty years of experience in modern educational sciences, including in the fields of educational environments and knowledge management.

Internal condition context. The curriculum of the module '*Learning In Knowledge and Information Society*' identified as the ideal environment to apply the theoretical EDENSOL model in practice for several reasons: historically, module students group is a mixture of already working professionals and undergraduate students with little work experience; this allows simulating organisational learning better. Module topics allow to incorporate organisational learning competence development in subject-related content; lecturer's deep

competence in the fields of educational environments and organisational learning.

3.2. Analysis of a case study of educational environments for students' organisational learning design in a university study module

In this subchapter the process and the results of EDENSOL application in practice are revealed, following the same phase order as the original EDENSOL model.

The Educational Environments for Students' Organizational Learning Empowerment phase application aims to empower students for organizational learning by developing their organisational learning competences.

The process. It took up to four lectures to prepare the students for self-directed learning and provide them with sufficient understanding of principles of modern organizations. During the introductory lecture, students were familiarised with the entire content and assessment of the module. During the theoretical lectures and practical workshops students were provided with some knowledge of modern education, self-directed learning, life-long learning, learning at work, organisational learning and modern organisation management principles. Students were encouraged to start their learning diaries, competence portfolios and take a test to detect their learning style, intelligence or team-work role preferences.

The result. An analysis of students' learning diaries revealed that students were capable of planning their learning, applied various learning methods in different learning environments and study curriculum engaged them into deep learning. Not all students managed to adapt to the new learning style instantly. It took several more lectures and practical workshops for students to adjust. At the end of the module focus group discussion, all students agree that they have become self-directed learners.

| Category | Indicators | Evidence | | |
|------------------------|--|---|---|--|
| | | Learning diary | Competence portfolio | Focus group discussion |
| Time-planning skills | Plans their time according to their learning purposes | Plans time and finds resources for extra learning time | Time-planning competence proved | Declares increased time-planning skills |
| Meta-learning skills | Knows how to adapt different learning styles in different situations | Learned how to learn in different environments (in the auditorium, museum, VLE) | Learning in different environments, reflection and meta-learning competences proved | Educational environments design allowed to use various environments for learning |
| Deep learning approach | Seeks to find out more beyond the provided scaffold | Sleeked for various additional learning resources | A seek for extra knowledge was declared in many portfolios self-analysis reports | Students felt motivated to seek for extra information and use various information resources for learning |

Figure 5. Students' organizational learning empowerment evidence

All students declared having experience working in organisations and having general understanding of modern organisation principles. At the end of the phase, all students were empowered for organisational learning.

The Educational Environments for Students’ Organizational Learning Enabling phase application aims to create a students’ organisation that solves a real social problem as a platform for organisational learning.

The process. Students were provided with a study assignment: to suggest an engaging cultural leisure activity allowing visitors to develop various competences in Kaunas Old Town environments. To solve the problem students had to create several educational routes for four groups of visitors (children, families, adults and foreign tourists). The task required creating a students’ organisation that networked with businesses, museums and other local entities and obliged to provide a project report for its social partners.

The result. A students’ organisation was created, containing three work divisions, a marketing department and module teacher as the CEO. The organisation had unique name, structure, vision, mission, organisation and divisions work plans.

| Category | Evidence | |
|--|---|---|
| | Documents | Observation |
| Organization activity is purposeful | Organization had vision, mission and purpose documented | Divisions have created their work spaces as Facebook social network groups |
| Organization has organizational structure and work divisions | Organizational structure, organization plans, division plans documented | Every division focused on creating educational routes for different target groups |
| Organization in interacting with external stakeholders | Several researches conducted to reveal the needs of target groups, project results presented to stakeholders and society. | All major decisions involved external stakeholders |

Figure 6. Students’ organizational learning enabling evidence

It is important to emphasise that at first students mostly identified themselves with their division than with the organisation. A responsibility for the results of the entire organisation started to increase after a completion of major project work units. Only spending more time together and uniting efforts for the final public project presentation helped students to work together towards one goal.

The Educational Environments for Empowering Students’ Organizational Learning Cycles phase aims to prompt students to practice organisational learning on individual and collective levels.

The process. The students’ organisation had to overcome eight project work units to solve the practical problem. Each work unit can be seen as a separate SECI cycle. Students socialised by spending time together in lectures, workshops, group meetings, virtual groups, informal environments. Those educational environments were either crated intentionally (i.e. guided tours to

Kaunas Old Town museums) or occurred naturally (i.e. chats in *Facebook* group). Student externalization took place in division meetings, usually initiated by students themselves. Meanwhile, the whole organisation meetings, the combination phase, were more formal, organised by the teacher during the lecture time. In those meetings all three divisions had to present their findings and best practices. A decision was made on the organisational level rather than divisional. In the internalization phase each student applied those decisions in their daily activities (i.e. creating a united form for project presentation).

The results. Towards the end of the module, organisation knowledge assets contained various sets of rules, best practices and documents. Students shared a lot of mutual understanding and knowing how to behave in certain situations.

| Category | Indicators | Evidence | |
|------------------|------------|--|--|
| Socialization | Cg | Students share knowledge in divisions or work groups | Students spent time together and shared knowledge during guided tour in Kaunas Old Town, during formal and informal meetings, actively discussed in their Facebook group. All the meetings are documented in division meeting protocols, observation logs, virtual environment treads. |
| | I | Students share knowledge through interaction. | Students claim that interaction with peers helped to change their understanding about subject-specific knowledge, develop communication and IT skills, increase motivation for deep learning, encouraged to work towards one goal. |
| Eksternalization | Cg | Discussion in divisions or work groups Decisions made in divisions and work groups Plans, rules and procedures documented | All students were actively involved in division discussions, decision making, planning. Every division had plans, rules or best practices documented and added to their knowledge assets. All the meetings are documented in division meeting protocols, observation logs, virtual environment treads. |
| | I | Individual knowledge is modified to with collective insights | Students claim that after department meetings and discussion their personal understanding of subject-specific knowledge has changed to a common understanding. |
| Combination | Co | Discussion in organisation level Decision made in all organisation level | All students were involved in organisation level discussions, decision making, planning. All the meetings are documented in protocols, observation logs, virtual environment treads. |
| | I | Individual knowledge is modified by organisation common decisions | Students claim that after all organisation meetings and discussion their personal understanding of subject-specific knowledge or best practice have changed to a common understanding. Students' were aware of decisions in other departments and organisation overall. |
| Internalization | Co | Based on common decisions, organisation's plans, rules and procedures documented | The students' organisation had plans, rules or best practices documented and added to the knowledge assets. All students followed agreed models, shared knowledge with peers from other divisions. |
| | Cg | Division plans, rules and procedures are modified to respond to the whole organisation's decisions | The documents in each division were modified to comply with new organisations decisions. |
| | I | Students apply the decisions of the organisation in their daily activities Students identify themselves with the organisation | Students applied the best practices of their organisation in their daily activities, sought to perform their task in united standards. Each student represented organisation in their communication with external stakeholders. |

Figure 7. Students' organisational learning evidence

The most significant result – students felt united to learn to achieve the same purpose of the organisation, felt responsibility for organisation's results.

The Educational Environment for Students' Assessment. Though this phase is depicted as the last one, student assessment took place throughout all phases but the final assessment was determined only at the end of the module. Student assessment system was designed reflecting the three-fold study curriculum purpose: to assess the result of problem-solving (project report), to assess organisational learning practice, to assess subject-specific and organisational learning competences.

The process. Students were presented with the assessment system in the introductory lecture. Assessment cumulative index contained significant percentage for the final project report that had to be presented by all students in public defence in Kaunas Municipality Hall. To assess students' organisational learning practice, students had to fill a 360-degree questionnaire evaluating themselves and colleagues. Thus each student's effort to practice organisational learning was evaluated by themselves, peers and the lecturer. Subject-specific and organisational learning competences were documented and defended using competence portfolios.

The result. At the end of the phase, all student assessment was summed up and provided in a ten-point systems, complying with university regulations. Overall, students were pleased with this very in-depth and holistic assessment.

3.3. Research discussion and recommendations

Empirical research data conclusions show that theoretical EDENSOL model can be applied in practice in order to achieve students' organisational learning.

The empirical research has a number of methodological and context-related limitations. Conducting the case study, particularly participatory, research, the subjectivity is unavoidable. Therefore, according to Yin (2010), only analytical generalisation is plausible, because research results are very context-dependent. The model was applied in the best possible purpose context, therefore it is reasonable to question if the model works in other contexts. The answer to this question lays in the practice of the main educational systems combined in EDENSOL model. Problem-based, collaborated and service learning were proved to be successful in various contexts. That leads to the assumption that the EDENSOL model could be successful in teaching other subjects as well. It is recommended to adapt the model to a specific context.

One of the disadvantages of the simulation-based models is time consumption (Lean et al., 2006). Applying the EDENSOL model in practice requires for students and lecturers to dedicate more time and resources to learning than traditional learning methods. Another possible barrier is the lecturer's competence requirements. The lecturer has to have subject-specific

competence, organisational learning competence and leadership skills, be prepared for constant adaptation to new conditions and learning. Therefore, before applying EDENSOL in other contexts it is recommended to form a team of teachers and empower them with sufficient skills, resources and liberate regulations.

Another important aspect is student's motivation for deep learning. It is preferable that students already have some experience of working in organisations which they can relate their new organisational learning knowledge to. Empirical data shows that some students needed more time to understand the theoretical concepts. Moreover, organisational learning requires sufficient student socialisation with peers. Therefore, it would be beneficial to extend model application time to two semesters or even more. Ideally, student organisation should work together in specially-designed spaces throughout the entire study period.

CONCLUSIONS

1. Theoretical substantiation of the educational environments for organisational learning that empower students' individual and collective learning revealed:

- Seeking to promote students' organisational learning in university, in order to develop their organisational learning competence (combined of individual and collective learning) along with subject-specific competences, students need to work as an organisation solving a socially significant problem. The study curriculum has to be based on service learning, collaborative learning and problem learning.
- This can be achieved by creating the Educational Environments for Students' Organizational Learning (EDENSOL). The model consists of:
 - Educational Environments for Students' Organizational Learning Empowerment, where students are empowered to perform in organisational learning environments, by using and developing their competences necessary for organisational learning.
 - Educational Environments for Students' Organizational Learning Enabling, where a group of students is enabled to work as a problem-solving organization.
 - Educational Environments for Empowering Students' Organizational Learning Cycle, that fosters organisational learning process, including students' individual and collective learning.
 - Educational Environment for Students' Assessment, where formative assessment principles are applied, assessing the problem-solving result, development of students' organisational learning and subject-specific competences, organisational learning practice.

- Applying EDENSOL model, students' organisational learning takes place on three levels: individual learning, collective group learning and collective organisation learning.

2. The research methodology of educational environments for organizational learning that foster students' individual and collective learning is based on a case of theoretical model substantiated in the first chapter empirically applied in a particular module.

- The participatory descriptive case study method is applied to disclose the processes of educational environments for the students' organizational learning model application, based on researcher's reflection in action. The application result is determined based on student feedback, analysing students' experiences and learning results.

- Research design corresponds with EDENSOL model stages, adding observation and focus-group methods. Triangulation for information sources, research methods, and information analysis was applied to achieve research quality, reliability and comprehensiveness.

3. The empirical research identified these students' individual and collective learning in the educational environments for organizational learning application aspects:

- The practical application of the Educational Environments for Students' Organizational Learning model allows to achieve students' individual and collective learning as organisational learning. At the beginning students struggle to modify their approach to learning conditioned by their prior learning experiences. During organisational learning enabling phase students identified themselves with a department and achieved a level of collective group learning. Yet, after some time, during common activities and socialization, students achieved common understanding, identified themselves not only with their department, but with the whole organisation. The level of collective organisation learning was achieved.

- Not all students have achieved collective organisation learning at the same time. Practicing organisational learning and peer-learning was proved to be crucial to help all students to achieve the same collective organisational learning level.

- There were a few obstacles for organisational learning in students' organisation. Interpersonal conflicts, demotivational effect of authoritarian leadership style, competition between departments resulted in students' learning within small teams, but not as the whole organisation. Therefore, lecturers had to unite students' efforts by arranging public problem-solving results presentation to the society. This prompted the students to take responsibility not only for personal or department achievements, but for the whole organisation. This way all students united to achieve one organisational purpose.

- With every new organisational learning cycle, the knowledge assets were filled on individual, collective group and collective organisational level knowledge. Knowledge assets contained problem-solving (including subject-specific) and organizational learning knowledge. Students developed subject-specific and organisational learning competences and presented a socially significant problem solution project.

- The theoretically substantiated model of the educational environments for the students' organizational learning (EDENSOL) was applied in the best possible purpose context meeting all necessary conditions. The module lecturer had the necessary competences, students had sufficient work in organisation experience, and subject-specific curriculum was convenient to develop organisational learning competence. Relevant adjustments of the model can be done in order to apply it in other contexts.

The research results are published in the following research articles

Publications in reviewed scientific journals:

1. Valinevičienė, Gintarė, Universiteto edukacinės aplinkos ir studento asmeninės mokymosi aplinkos sąveikos veiksniai naudojant saityną 2.0. // Informacijos mokslai = Information Sciences: mokslo darbai / Vilniaus universitetas. Vilnius: Vilniaus universiteto leidykla. ISSN 1392-0561. 2013, T. 63.

2. Starkutė, Jovita, Valinevičienė, Gintarė Studentas - universiteto klientas ar akademinės bendruomenės narys? // Aukštojo mokslo kokybė = The quality of higher education / Vytauto Didžiojo universitetas. Kaunas: Vytauto Didžiojo universitetas. ISSN 1822-1645. 2013, nr. 10, p. 123-150.

3. Jucevičienė, Palmira, Valinevičienė, Gintarė (2015). Educational Environments for Students' Organizational Learning. Social sciences, 87 (1), p. 41-50.

The dissemination of dissertation research results in international conferences:

1. Valinevičienė, Gintarė Jucevičienė, Palmira. Student collective learning for sustainable development decision-making in the future organizations. // The future of education for sustainable development and the social pillar of sustainability security and stability in the Baltic Sea region: Baltic University Programme teachers conference, 7-10 November, 2012, Kazimierz Dolny, Poland. p. [1-10].

2. Jucevičienė, Palmira, Valinevičienė, Gintarė. A conceptual model of organizational learning educational environment empowering student individual and collective learning. // INTCESS14 - International Conference on Education and Social Sciences [elektroninis išteklius], 3-5 February, 2014 Istanbul, Turkey: abstracts & proceedings / Edited by F. Uslu. Istanbul: International Organization Center of Academic Research. ISBN 9786056445309. p. [1-7].

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EDUCATION

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Master in Educational Science, Study programme of educational technologies, Kaunas University of Technology.

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Bachelor in Educational Science, Study programme of applied ethics, Lithuanian University of Educational Sciences.

2002–2005

Bachelor in Management, Study programme of business management with marketing specialisation, Kolping University of Applied Sciences.

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Lecturer's assistant in courses:
Specific E-learning application problems;
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Learning in a Knowledge and Information Society;
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Visited over fifty international conferences, workshops or other scholar events.

REZIUMĖ

Universitetai turi parengti būsimuosius profesionalus kolektyvinei veiklai būsimosiose darbo vietose – organizacijose. Universitete, kuris veikia pagal šiuolaikinę edukacinę paradigmą, studijų organizavimo tikslu tampa naudos informacijos perteikimas, bet įgalinamųjų edukacinių aplinkų kūrimas. Ypač veiksmingomis priemonėmis laikomos edukacinės aplinkos, skatinančios mokymąsi bendradarbiaujant ir įgalinančios studentus mokytis giliau, spręsti problemas, vystyti socialinius gebėjimus, kurių prireiks gyvenime. Mokėjimas mokytis organizacijose yra esminė kompetencija, kurią turi turėti kiekvienas darbo rinkai besiruošiantis studentas.

Organizacinis mokymasis – tai organizacijai svarbus mokymasis, kuriant individualaus ir kolektyvinio lygmenų organizacines žinias (Argyris, 1972; Johnson, 2007; Jucevičienė, 2007; Knapp, 2010; Šajeva, 2010; Mozūriūnienė, 2010). Toks mokymasis yra nukreiptas organizacijos tikslams pasiekti. Tam, kad universitetai galėtų rengti studentus, pasirengusius nuolatiniam organizaciniam mokymuisi, reikia supratimo, kas yra organizacinis mokymasis ir kaip jis turi atsispindėti universiteto *curriculum*. Deja, skirtingos mokslo disciplinos analizuoja skirtingus organizacinio mokymosi aspektus, ir nė viena nepateikia sprendimo.

Šiuolaikinės didaktikos pagrindu sukurtuose universitetų *curriculum* nekalbama apie organizacinį mokymąsi ir jo ugdymą, siekiant kompetencijos veikti organizacijoje. Paprastai apsiribojama paminint komandinio / grupinio darbo metodus arba praktiką. O organizacinis mokymasis pirmiausia yra siejamas su gebėjimu įgyjant reikalingų žinių siekti organizacijos tikslų. Tam studentas turi išmokti identifikuotis su organizacija ir jos tikslais, įvaldyti organizacinio mokymosi kompetencijas, įgalinančias šių tikslų siekti. Todėl šioje disertacijoje keliamas tarpdisciplininis **probleminis klausimas**: *kokios organizacinio mokymosi edukacinės aplinkos turi būti užtikrintos, kad vyktų studentų individualus ir kolektyvinis mokymasis, ne tik pasiekiant dalykinių žinių įsisavinimo, bet ir organizacinio mokymosi kompetencijos?*

Atsakymams į šiuos mokslinių tyrimų reikalaujančius klausimus ir yra skiriamas šis disertacinis darbas, kurio **tyrimo objektas** – studentų individualus ir kolektyvinis mokymasis organizacinio mokymosi edukacinėse aplinkose.

Tyrimo tikslas – atskleisti studentų individualų ir kolektyvinį mokymąsi organizacinio mokymosi edukacinėse aplinkose.

Uždaviniai:

1. Pagrįsti studentų individualų ir kolektyvinį mokymąsi užtikrinančias organizacinio mokymosi edukacines aplinkas.

2. Pagrįsti studentų individualų ir kolektyvinį mokymąsi užtikrinančių organizacinio mokymosi edukacinių aplinkų tyrimo metodologiją.

3. Nustatyti studentų individualaus ir kolektyvinio mokymosi raišką organizacinio mokymosi edukacinėse aplinkose.

Tyrimo metodologija

Įgyvendinant šiuos uždavinius, remiamasi šiomis konceptualiosiomis pozicijomis:

- Nagrinėjant žmogaus mokymąsi, vadovaujamosi sociokultūrinio konstruktyvizmu (Vygotsky, 1986), teigiančiu, kad pažinimo šaknys – sociokultūrinės, o mokymasis neatsiejamas nuo konteksto.

- Pabrėžiama mokymosi paradigma (Knowles, 1975; Alheit, 2002; Longworth, 2003), pripažįstanti, kad žmogus mokosi visur ir visada, visą savo gyvenimą, o yra mokomas tik tam tikroje gyvenimo atkarpoje (ar atkarpose).

- Nagrinėjant ir kuriant edukacines aplinkas, vadovujamosi įgalinamosios edukacinės aplinkos konceptu (Jucevičienė et al. 2010), išryškinančiu veiksnius, kurie lemia šios edukacinės aplinkos dinamiškumą ir jos galimybes transformuotis į įvairių besimokančiųjų asmenines mokymosi aplinkas.

- Organizacinis mokymasis nagrinėjamas akcentuojant Nonaka, Takeuchi (1995) sukurtą dinaminį žinių transformavimo (toliau – SEKI, angl. *SECI*) modelį, kuriame socialinės sąveikos metu tarp individų vyksta slypinčių ir išreikštų žinių tarpusavio sąveika ir transformacija. Šios socialinės transformacijos metu išreikštos ir slypinčios žinios pagausėja kokybiškai ir kiekybiškai (Nonaka, 1991). Šioje disertacijoje SEKI modelis papildomas Johnson (2007) įžvalga, kad šalia kolektyvinio vyksta ir darbuotojų individualus mokymasis, daugiausia – iš patirties.

- Organizacinio mokymosi aplinkos ir jų kūrimas nagrinėjami kaip pagrindinė prielaida organizaciniam mokymuisi vykti (Nonaka, Toyama, Konno, 2000) – tai reiškia, kad, norint studijų procese pasiekti organizacinio mokymosi, reikia studentų grupėje sukurti darbo organizacijos kontekstą; efektyvus žinių kūrimas priklauso nuo jų įgalinančio konteksto (Von Krogh, Ichijo, Nonaka, 2000), todėl darbo organizacijos kontekstas, kuriamas studentams, turi pasižymėti edukacine galia, t. y. padėti jiems suprasti ir įgyvendinti organizacijoje vykstančius procesus (tarp jų – ir organizacinį mokymąsi), kurie vyksta siekiant organizacinio tikslo.

- Studentų edukacinis įgalinimas nagrinėjamas kaip procesas, kurio metu galią turintys individai (dėstytojas, dekanatas ir kt.) dalijasi šia galia su studentais, siekdami suteikti pastariesiems galimybes „padidinti žinias, gebėjimus bei kompetenciją, ypač – mokytis visą gyvenimą, dalyvaujant sprendimų priėmimo procesuose, susijusiuose su jų ateities profesine veikla bei imantis atsakomybės už savo asmeninio gyvenimo kūrimą bei kontrolę“ (Jucevičienė, Vizgirdaitė, 2012, p. 46).

Metodologinės tyrimo pozicijos:

- Tyrimo filosofijos pagrindą sudaro postmodernistinė interpretyvistinė nuostata, kai pabrėžiama, kad tyrėjas ir jo suvokimas yra lygiai toks pats svarbus,

kaip ir tyrimo subjektai, todėl prilyginamas tyrimo dalyviui (Cochran-Smith ir Lytle, 2009).

- Tyrimo strategija – atvejo studija. Tai – detalus aplinkos, atskiro subjekto, tam tikrų dokumentų arba atskirų įvykių tyrimas (Creswell, 1998). Atvejo studija – tai toks tyrimas, kurio metu socialinės problemos analizuojamos ištyriant tik vieną ar kelis jų raiškos atvejus, numatant detalų, gilų vieno ar kelių atvejų ištyrimą, remiantis kuo didesniu skaičiumi socialinės informacijos šaltinių ir pritaikant kuo įvairesnius socialinių tyrimų metodus (Stake, 2005).

- Trianguliacijos principas taikomas siekiant tyrimo objektyvumo, išsamumo ir pilnumo. Trianguliacija taikoma šaltiniams (informacija apie tyrimo objektą renkama iš skirtingų edukacinės aplinkos veikėjų bei lygmenų), duomenų rinkimo metodams (informacija renkama skirtingais vienas kitą papildančiais metodais) bei duomenų apdorojimui (taikomi keli duomenų apdorojimo metodai).

Teoriškai pagrįsti organizacines mokymosi aplinkas ir esminiams konceptams išgryninti atliekama mokslinės literatūros analizė. Tyrimo literatūra pasirinkta žinių vadybos, organizacijos elgsenos, vadybos, aukštojo mokslo didaktikos bei filosofijos temomis. Siekiant pagrįsti atvejo studijos metodiką, taikyta mokslinės literatūros analizė, atsižvelgta į mokslinės literatūros rekomendacijas, kitų mokslininkų atliktų edukacinių atvejo studijų struktūrą ir praktinę patirtį.

Vykdamas empirinį tyrimą, remtasi keliais duomenų rinkimo būdais. Organizacinio mokymosi edukacinių aplinkų modelio įgyvendinimas (t. y. kaip vyko procesas?) analizuojama veiklos refleksijos pagrindu (Argyris, Schon, 1987), kai reflektuojama pačioje veikloje ir po jos. Duomenų ištekliai: dėstytojų užrašai, pokalbių įrašai, paskaitų planai ir stebėjimo protokolai, studentų mokymosi dienoraščiai ir interviu. Edukacinės aplinkos rezultatų vertinimas (koks poveikio rezultatas?) paremtas studentų grįžtamoju ryšiu – nustatoma, kaip studentai vertino edukacines aplinkas, kokie yra jų mokymosi patyrimai ir rezultatai, ar pasiekti kiekvienam etapui keliami tikslai (Stukalina, 2010). Duomenų ištekliai: interviu, dokumentai, sukurti studentams vykdamas veiklą, studentų mokymosi dienoraščiai.

Tyrimo empiriniai duomenys analizuojami taikant kokybinę turinio analizę, nes ji palengvina konteksto prasmės tekste suvokimą per išskylančias temas, analizėje konceptai išskyla iš atsakymų į tiriamųjų interpretacijas ir vertinimus (Bitinas, Rupšienė, Žydžiūnaitė, 2008). Tekste pasirenkami geriausiai turinį atspindintys teiginiai. Pats organizacinio mokymosi edukacinių aplinkų modelio įgyvendinimo empirinis tyrimas pateikiamas kaip naratyvas, laikantis edukologinio naratyvo principų (Heikkinen, Huttunen, Syrjälä, 2007).

Disertacijos turinys

Pirmojoje dalyje siekiama pagrįsti individualaus ir kolektyvinio mokymosi sampratą edukologijos ir žinių vadybos disciplinų požiūriu, apibrėžti, kaip

reiškiasi individualus ir kolektyvinis mokymasis vykstant organizaciniams mokymosi procesams, išskiriant atskiras kolektyvinio grupinio ir kolektyvinio organizacinio mokymosi rūšis, atskleidžiama, kokios sąlygos turi būti įgyvendintos studentų organizaciniam mokymuisi užtikrinti ir kaip turi būti įgyvendinama organizacinio mokymosi edukacinė aplinka studijų procese. Teorinė dalis baigiama teoriškai pagrįstu studentų organizacinio mokymosi edukacinių aplinkų modeliu (SOMEA).

Antrojoje dalyje pagrindžiama individualaus ir kolektyvinio organizacinio mokymosi įgalinimo edukacinių aplinkų tyrimo metodologija. Pagrindžiamas tyrimo dizainas, duomenų rinkimo metodai ir instrumentai, atskleidžiami tyrėjo etikos principai.

Trečiojoje dalyje atskleidžiama studentų individualų ir kolektyvinių mokymąsi įgalinančių organizacinio mokymosi edukacinių aplinkų tyrimo kontekstas, teorinio modelio taikymo eiga ir rezultatai, diskusija ir rekomendacijos.

Pateikiamos apibendrintos išvados, rekomendacijos, priedai.

Darbo mokslinis naujumas ir teorinis reikšmingumas:

- Pagrįstas studentų organizacinį mokymąsi užtikrinančių edukacinių aplinkų modelis (SOMEA) ir išryškinti jo įgyvendinimo ypatumai.

- Išryškinti studentų individualus mokymasis ir kolektyvinis mokymasis organizacinio mokymosi edukacinėse aplinkose.

- Patikslintos individualaus ir kolektyvinio mokymosi sampratos edukologijos ir žinių vadybos disciplinų sandūroje.

Darbo praktinį reikšmingumą sudaro:

- Disertaciniame darbe sudarytas studentų organizacinio mokymosi edukacinių aplinkų modelis (SOMEA) leidžia praktiškai pasiekti studentų individualaus ir kolektyvinio mokymosi derinimą universitete, šalia dalykinio turinio ugdant studentų gebėjimą konstruoti organizacines žinias.

- Šio modelio taikymas praktikoje turėtų palengvinti studentų įsiliejimą į darbo rinką ir suteikti pagrindus sėkmingai veikti šiuolaikinėse organizacijose;

- Nustatyti SOMEA modelio taikymo barjerai, galimos probleminės sritys ir rekomendacijos leidžia universiteto dėstytojams pritaikyti modelį konkrečiam kontekstui ir užkirsti kelią taikymo nesklandumams.

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