

KEY COMPETENCES: CONCEPTS AND TYPOLOGIES

BENDROSIOS KOMPETENCIJOS: SAMPRATOS IR TIPAI

VIDMANTAS TŪTLYS, Vytautas Magnus University | Vytauto Didžiojo universitetas

GENUTĖ GEDVILIENĖ, Vytautas Magnus University | Vytauto Didžiojo universitetas

Summary. Key competence is one of the core concepts applied in the adult education and lifelong learning. As a concept, it is understood and applied in rather different ways, what presents various challenges for its interpretation and usage in the policies and processes of adult education and lifelong learning. Therefore the goal of this paper is to overview and explain conceptual backgrounds and typologies of key competences. This goal is achieved by analysing theoretical approaches to key competences and their development and comparing different typologies of key competences.

Key words: key competence, key competence typologies, lifelong learning, adult education

Santrauka. Bendrosios kompetencijos yra viena iš esminių sąvokų, taikomų suaugusiųjų švietimo ir mokymosi visą gyvenimą srityje. Ši samprata yra suvokiama ir naudojama labai įvairiai, todėl ją interpretuojant ir naudojant mokymosi visą gyvenimą ir suaugusiųjų švietimo srityje susiduriama su įvairiais iššūkiais. Todėl šiame straipsnyje yra apžvelgiamos ir paaiškinamos bendrųjų kompetencijų koncepcijos ir tipologijos, analizuojant įvairias teorijas bei lyginant esamas bendrųjų kompetencijų tipologijas.

Raktiniai žodžiai: bendrosios kompetencijos, bendrųjų kompetencijų tipai, mokymasis visą gyvenimą, suaugusiųjų švietimas

INTRODUCTION

Adult education and development of key competences play a crucial role for the improvement and development of the human capital of the society. Investment in the development of key competences of adults becomes strategically important seeking to respond to the challenges of economic competitiveness and social cohesion in the above outlined social and demographic conditions, when there is an increasing demand of skilled workforce in the labour market.

The impact of education and lifelong learning to the development of society is increasing. Acquisition of key competences and their application in the different activities is defined by the multiple factors influenced by the political, economic, social and cultural changes. Adult population faces necessity to acquire and develop key competences through lifelong learning thus opening new possibilities of participation in the social life. Development of innovations in the economy and society also requires to improve the application of knowledge and skills and to increase their effectiveness. J. Delors outlined the core objectives of lifelong learning in his report to UNESCO „Learning: the Treasure Within“ (1996) and these comprise learning to live together, learning to know, learning to act and learning to be. Recommendation of the

European Commission on the key competences discern skills that enhance social integration, active citizenship, and productive employment (*Recommendation of the European Parliament and of the Council*, 2006). Therefore it is important, that each person within his/her needs and capacities would apply key competences in developing personality and expressing the civic and national identity. Lifelong learning should be focused to the self-development of personality, active participation in the professional field and self-realization of person.

Concepts of the key competences are defined by indicating their essential features and characteristics: 1) *universal character of contents* characterised by the application of these skills and competences in the different situations and contexts of professional, social and personal life; 2) *flexibility and changeability of contents* – key competences are composed of different components (knowledge, skills, abilities) having no strict structuring of contents and subjected to dynamic change; 3) *importance for professional, social mobility and social cohesion* – development of key competences (especially learning to learn competence) creates important preconditions for human capital development and adjustment of its contents to the needs of the world of work. The possibilities of application of key competences are influenced by the human resource management and development strategies of enterprises, institutional models of education systems, policies of labour market, economic development, education and vocational training, attitudes of society and citizens to the existing pathways of professional and personal development. Key competences play an important role in the field of professional and geographical mobility of employees and learners, what makes them an important factor of the international migration of workforce.

The goal of this paper is to overview and explain conceptual backgrounds and typologies of key competences. This goal is achieved by analysing theoretical approaches to key competences and their development and comparing different typologies of key competences.

THEORETICAL APPROACHES TO KEY COMPETENCES AND THEIR DEVELOPMENT

Key competences since the end of the XXth century have become an important subject of the research and expert discussions.

Human capital theory stresses that the needs of key competences in the labour market are determined by the fact that the demand of skills in the labour market has not only its specific features, but also many common characteristics. Skill formation political economy theories treat key competences as capacities of individuals needed for the economic activity that are shaped in the interactions between the social economic system and acting institutions.

Theory of variety of capitalism explains the demand of key competences referring to the articulation between the regimes of social welfare and employment from the one side and protection of employment and wages ensured by the industrial relations and social dialogue from the other side. Estevez-Abe, Iversen and Soskice (2001) distinguish there types of skills that are applied in the economic activities: enterprise specific skills, sector-specific skills and general skills (Estevez-Abe, Iversen, Soskice, 2001). The distribution of these skills in society and preferences of their development depend on the above mentioned articulation between the regimes of social welfare and employment and protection of employment and wages ensured by the industrial relations and social dialogue.

Table 1

Dependence of preferences of development of skills on the articulation between the regimes of social welfare and employment and protection of employment and wages ensured by the industrial relations and social dialogue (adapted from Estevez-Abe, Iversen, Soskice, 2001)

		Protection of employment and wages executed via industrial relations and social dialogue	
		Undeveloped	Developed
Protection from unemployment and insurance against the loss of work revenues executed by the state and social stakeholders	Developed	Individuals and enterprises invest in the acquisition and development of skills that are needed for and can be applied in the sectors of economy. <i>Denmark (→), Sweden, Finland, Italy, Spain, Greece, Lithuania (↓)</i>	Individuals and enterprises invest in the acquisition and development of skills that are needed for and can be applied in the workplaces, enterprises and sectors of economy <i>Germany, Austria, the Netherlands, Switzerland</i>
	Undeveloped	Individuals invest more in the acquisition and development of key skills. <i>USA, UK</i>	Individuals and enterprises invest in the acquisition and development of workplace and enterprise oriented narrowly specialised skills. <i>Japan, Republic of South Korea</i>

Streeck (2012) criticises such approach and notices that the skills and their distribution in the society are not factors, but the outcomes of historically developed nationally specific institutional constraints and opportunities for capital and labor, related to the politics of work organization and to authority at the point of production.

Le Deist and Winterton distinguish (2005) four dimensions that help to classify competences in the corresponding types:

Table 2

Typology of competences proposed by Le Deist and Winterton (2005)

	Professional dimension	Personal dimension
Conceptual dimension	Cognitive competence	Metacompetence
Operational dimension	Functional competence	Social competence

Referring to this typology key competences (such as metacompetence and social competence) have a more strongly expressed personal dimension. Metacompetence involves skills and abilities related to conceptual dimension (e.g. learning skills, logical thinking skills, positive attitude to change and personal development, etc.), whereas social competence involves more skills belonging to operational dimension (transfer of information, cooperation and teamworking skills, etc.).

Key competences are also important elements of qualifications and as such are considered in the instruments that are used for structuring and regulation of the national and sector systems of qualifications. For example, Lithuanian Qualifications Framework approved by the Government of Lithuania in 2010 described the levels of qualifications by referring to the requirements of the characteristics of activities to the functional, cognitive and key competences (Tūtlys, Spūdytė, 2011). As it was noticed by Laužackas, Tūtlys and Spūdytė (2009), one of the challenges of such classification is a lack of well defined distinction between the cognitive and general competences, when, for example, considering the referencing of general education knowledge, know-how of operational performance, etc. This challenge is very typical when using the concept of key competence as one of criteria for defining the levels of qualifications in the qualifications frameworks. One of possible solutions of this problem is contextualisation of the definition of key competences with some broad, but more concrete processes or fields of activities, for example, communication (social competences), problem solving and decision making (problem solving competence), etc.

Typologies of key competences originate from the different goals and conditions: 1) scientific research of key competences require to „catalogue“ and to categorise key competences referring to the goal and scope of research; 2) regulation and management of the provision of key competences for the various reasons starting from the implementation and development of qualifications systems and frameworks, international comparison of competences and qualifications and ending with the curriculum design in general, vocational and higher education.

In EU documents the concept of competence is understood as a common connecting concept associated with fully understandable personal potential and opportunities to adapt to the variable and targeted abilities based on knowledge and experience. In Lithuanian Republic Law on Education (2011) the competence is defined as the ability to perform a certain activity based on the knowledge, abilities and values. Key competences are competences that can be developed in various study programs and adapted in different contexts.

“Competences“ show educated particular ability: a certain action, activity or thing to do. The concept of competence defines personality behavior and expresses in a broad sense adaptive and effective functioning of the person in certain situations.

In order for person to create his or her successful life and to participate in the creation of wealth, it is necessary to mobilize a lot of abilities. European Commission references eight key competences: (see figure 2):

Communication in the mother tongue. It is every citizen's ability properly and correctly use vocabulary, grammatical written culture. To communicate competently using oral language, expressing their views, interviews and participation in discussions.

Communication in foreign languages. The duty of every citizen, no matter of age, is to be proactive in intercultural communication. Ability to communicate in a foreign language expands human capabilities. However, foreign language proficiency level depends on what are your listening, speaking, reading and writing abilities.

Mathematical competence and basic Competences in Science and Technology signifies that every citizen should master the mathematical abilities such as number, measurement units, basic mathematical operations and actions in everyday life.

Digital Competences. Living in the twenty-first century for people is becoming more difficult to be an active participant in it. New social networks, as Facebook, Skype and

others, information society technologies help citizens to communicate with each other, to share information, and finally to spend their leisure time. These abilities help individuals to enhance critical and creative thinking, to develop information literacy abilities.

Learning to learn. All competences are interrelated. Learning to learn is a complex process in which we learn to analyze learning situations reflectively, trying to identify themselves. Therefore, in learning to learn, a citizen can identify their strengths and weaknesses, and thus to use learning strategies proper for him.

Civil and Social Competences. All human life happens being and participating in society just in different functions. Therefore, this ability includes personal, interpersonal and intercultural abilities. Through the general abilities expression, a man reveals himself. Seeking this ability, a person learns to be tolerant, honest, confident, he learns to understand and evaluate their own and others' opinions, in a constructive communication and cooperation, creating a democratic, justice-based environment.

Sense of initiative and entrepreneurship. Through this competence displays human creativity, thrusting, the desire to be independent. This competence is necessary for every citizen to be able to successfully lead them to work in a competitive job market, trying to keep their job place or creating for them a job place setting up a business.

Culture awareness and expression. This competence refers to an individual's cultural knowledge. Culture, expressing the human world-view and world-picture, it's not just a phenomenon in its own nation. Cultural awareness is important for national and international orientation of cultural.

Lifelong Learning (LLL) guarantee competences are considered particularly important in a knowledge society, because they guarantee more flexibility in the labor market, more adaptation to constant change. Self-guarantee also increases student motivation, attitude to learning and its uniqueness. (Key Competences for lifelong learning. Recommendation of the European Parliament and of the Council, 2006). Every citizen should improve their abilities, knowledge continuously, actively participating in social life and acting successfully in a changing labor market and the business world.

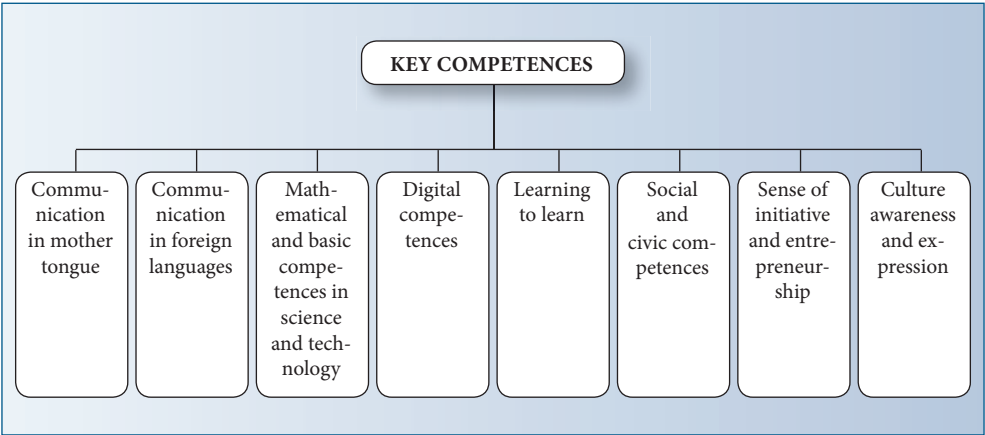


Fig. 1. Key competences.
(Key competences for lifelong learning. Recommendation of the European Parliament and of the Council, 2006)

Aging population and the growing labor shortages require to find ways how to help adults to stay longer in the labor market. These processes and economic globalization as well intensify the competition for jobs and require constantly adapt to the change. Mobilization of key competences is becoming an important task for citizens, businesses and the state.

The European key competences for lifelong learning abilities distinguish eight key competences, which citizens require for their personal fulfillment, social inclusion, active citizenship and the ability to work in the knowledge society. All these competences are equally important for every citizen, because only they can help to orient to a knowledge society in lifelong learning (LLL) processes. These competences are directly linked with each other, overlap and complement one another. (Key competences for lifelong learning, European Reference Framework, 2007). (See Figure 3).

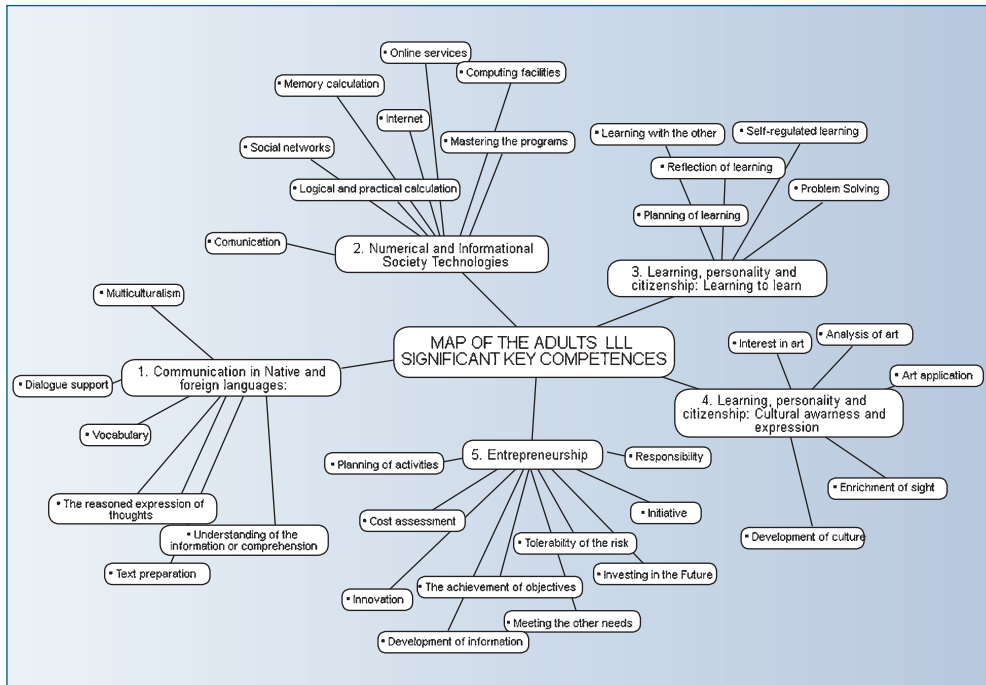


Fig. 2. Map of significant adults' LLL key competences

Each conceptualized competence contributes to active participation in society life, successful operation and adaptability in the constantly changing world of work. Therefore, each of these significant competences should provide added value for career designing, by reducing the gap between business and science in order to ensure the well-being of the aging population. Therefore, in order to respond to the aim of the study - perform general competences analysis, to look at key competences development process, to review the situation at the national and

international level, it is very important to identify the each competences abilities which can help for every citizen successfully operate in the constantly changing world of work.

Communication in mother tongue and in foreign language. The Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR), and (2002) is currently the most important document of language policies and the practical application areas. This document defined the concept of linguistic competence, the structure, areas of operation, language proficiency levels, language user competences and aspects of the evaluation.

The main abilities of communication in the mother tongue competence is to express and interpret concepts, thoughts, feelings, facts and opinions orally and in writing and interact in various social and cultural environment. It covers speaking, reading, listening and writing, and requires knowledge of vocabulary and grammar, literary and non-literary texts of knowledge (Key competences for lifelong learning, European Reference Framework, 2007, p. 4).

Table 3

Native and foreign language

Competence	Abilities
Native and foreign languages	Native/foreign language dictionary and grammar knowledge The information transmitted in their native/foreign language oral and written comprehension Ability to read and understand the literary and non-literary texts Ability reasoned thought and opinion Ability to prepare written and oral text Ability to interact with others in constructive dialogue Ability recognize cultural diversity and intercultural communication and the need for cooperation

Communication in foreign languages broadly shares the main abilities as in communication in the mother tongue, but also calls for abilities such as mediation and intercultural understanding. Each person's level of proficiency depends on the four dimensions (listening, speaking, reading and writing) and of different languages, social and cultural background, environment, needs, and (or) interests. (Key competences for lifelong learning, European Reference Framework, 2007, p. 5). Communication in any language means that person should have a good knowledge of vocabulary, grammar, and the different functions of language.

Numerical and informational society technologies. Digital competence, information society technologies requires a sound understanding and knowledge of the nature, role and opportunities of information society technologies (IST) in everyday contexts: in personal and social life as well as at work. This includes main computer applications such as word processing, spread-sheets, databases, information storage and management, an understanding of the opportunities and potential risks of the Internet, communication via electronic media (e-mail, network tools) for work, leisure, information sharing and collaborative networking, learning and research. (Key competences for lifelong learning, European Reference Framework, 2007, p. 7).

Table 4

Numerical and informational society technologies

Competence	Abilities
Numerical and Informational Society Technologies	Ability from memory to perform elementary calculations required for household Ability to think mathematically and logically in practical calculations in everyday life (the calculation of the apartment / house square footage, etc.). Ability to use electronic devices for mathematical calculations (calculators, cell. Handset) Ability to use IT tools for personal and / or business purposes (e-mail, Skype, Facebook) Ability to use IT for personal and / or business purposes (e-banking, elections, purchase services, press, etc.). Ability to use the Internet for finding and selecting relevant information Process information using computer programs (Word, Excel, etc.).

Learning, personality and citizenship: learning to learn. Learning to learn competence is understood as a complex combination of knowledge, abilities, values, attitudes and dispositions assisting the lifelong learning, and by learning in formal and informal way. Learning to learn is important because it leads to a purposeful learning. The definition of learning to learn concept is inserted within the framework of the European Commission's recommendations (2006).

Table 5

Learning, personality and citizenship: learning to learn

Competence	Abilities
Learning, personality and citizenship : learning to learn	Ability to organize their own learning process Ability to learn and act independently Ability to learn and operate within a group Ability to solve problems Ability to discuss (reflect) their own learning and activities

„Learning to learn engages learners to build on prior learning and life experience to use and apply knowledge and abilities in various situations - at home, at work, in education and training“ (Key competences for lifelong learning, European Reference Framework, 2007).

Table 6

Learning, personality and citizenship: Cultural awareness and expression

Competence	Abilities
Learning, personality and citizenship : Cultural awareness and expression	Interest in art, feeling the need of art (interest in selected art direction and areas of classical works and innovation) Ability to analyze and interpret works of art in their messages, evaluating its relevance (select for yourself interesting and socially relevant works of art, works of art critically evaluate the ideas proposed, their relevance to human society).

	<p>Ability to apply creative artistic elements of work and everyday life (the ability independently perform simple acts of artistic creation or elements and adapt them at work and in everyday life).</p> <p>Ability to develop their cultural outlook and enrich it purposefully (critically evaluate works of art and cultural events in their own fitness-minded development, to decide on the most appropriate cultural and artistic events, etc.).</p> <p>Ability to communicate with other people of culture and arts, developing and enriching the cultural outlook (egg, participation in the artistic expression activities - clubs, societies, associations, arts and arts institutions).</p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Learning, personality and citizenship: Cultural awareness and expression. Cultural knowledge includes an awareness of local, national and European cultural heritage and their place in the world.

It covers a basic knowledge of major cultural works, including popular contemporary culture. (Key competences for lifelong learning, European Reference Framework, 2007). Cultural awareness promotes personality improvement process: creating the role of the creative process and analysis of dramaturgy and understanding necessary for cognitive literature expands your circle of knowledge, develops the body, voice, acting technique, and communicating with colleagues, creative director, and other members of the group, accumulates inside the unique experience of learning from the experience of others.

Entrepreneurial competence. Entrepreneurial competences comprises the ability to identify and act on opportunities as well as the ability to acquire and utilize resources need for transforming the ideas into fruition.

Table 7

Entrepreneurial competence

Competence	Abilities
Entrepreneurial	<p>Orientation towards the achievements of the objective;</p> <p>Initiative – the ability to take the initiative;</p> <p>Responsibility for own and the other (egg, work group, team) actions and initiatives against the organization and society; Innovation - orientation towards the various innovation by establishing and deployment;</p> <p>Risk tolerance – Ability to assume the risks and to act rationally in risky situations.</p> <p>Ability to evaluate the cost and the current (potential) added value</p> <p>Ability to plan own work and other short-term and long-term</p> <p>Ability to refuse to meet the current needs of investing in the future.</p> <p>Ability to understand others (consumers') needs</p> <p>Ability to communicate conclusively and formally to convey to others the ideas and data.</p>

Development of employability competence is one of the priorities in agendas of education reform strategies of Lithuania and the EU. Its abilities and development is associated with a high level of independent quality of life (Gevorgianienė V., Galkienė A., Grincevičienė V., 2008). Entrepreneurship is an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, and the ability to plan and manage projects in order to achieve objectives (Key Competences for lifelong learning. Recommendation of the European Parliament and of the Council, 2006).

An entrepreneurial attitude is characterized by initiative, proactivity, independence and innovation in personal and social life, as much as at work. It also includes motivation and determination to meet objectives, whether personal goals, or aims held in common with others including at work. (Key competences for lifelong learning, European Reference Framework, 2007).

CONCLUSIONS

Key competences in terms of knowledge and abilities are important for every individual of the knowledge-based society. They provide added value in the labor market, social cohesion and active citizenship, by offering flexibility and adaptability, satisfaction and motivation. Therefore, they should be regularly educated in both international and national levels.

The concept of key competences is on the focus of the different theoretical approaches discerning various features of key competences. Typologies of key competences can be different depending on the goal of classification and applied approaches, from the categorisation of key competences referring to the goal and scope of scientific research to the classification based on the agreements of experts for the purposes of regulation and management of the provision of key competences in conditions of implementation and development of qualifications systems and frameworks, international comparison of competences and qualifications, etc.

The eight types of key competences proposed by the European Commission (2005) that include *communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competences, learning to learn, civil and social competences, competence of initiative and entrepreneurship, culture awareness and expression* can be further combined into five bigger types that include *communication in the native and foreign languages, numerical and information society technologies, learning to learn, personality and citizenship development, entrepreneurship competence*. Such typology is more simple and convenient for the research and analysis of application and development of key competences in the adult education and lifelong learning.

REFERENCES

- Estevez-Abe M., Iversen T., Soskice D. (2001). Social protection and the formation of skills: A reinterpretation of the welfare state. In Peter A. Hall & David Soskice (Eds.), *Varieties of capitalism: The institutional foundations of comparative advantage* (pp. 145–183). Oxford, UK: Oxford University Press.
- Gevorgianienė V., Galkienė A., Grincevičienė V. (2008). Verslumo gebėjimų raiška kryptingo ugdymo sąlygomis. *Pedagogika*: Vilnius.
- Key Competences for Lifelong Learning. Recommendation of the European Parliament and of the Council* (2006). European Parliament and of the Council. Access in the Internet: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:en:PDF>
- Key competences for lifelong learning, European Reference Framework* (2007). European Parliament and of the Council. Access in the Internet: : http://ec.europa.eu/dgs/education_culture/publ/pdf/ll-learning/keycomp_en.pdf
- Laužackas R., Tūtlys V., Spūdytė I. (2009). Evolution of competence concept in Lithuania: from VET reform to development of National Qualifications System. *Journal of European Industrial Training*. Emerald. ISSN 0309-0590. Vol. 33, No. 8/9, 800–816.
- Le Deist F., Winterton J. (2005). 'What is competence?' *Human Resource Development International*, Volume 8, Iss. 1. Routledge, Taylor and Francis, 27–46.

- Lietuvos Respublikos švietimo įstatymas/Lithuanian Republic Law on Education. (2011). Lietuvos Respublikos švietimo ir mokslo ministerija: Vilnius. Access in the Internet: http://www.sac.smm.lt/images/file/e_biblioteka/Lietuvos%20Respublikos%20svietimo%20istatymas.pdf
- Streeck W. (2012). Skills and Politics: General and Specific. In: Busemeyer, M. R., Trampusch, C. (Eds.). *The Political Economy of Collective Skill Formation*. Oxford. Oxford University Press, 317–352.
- The Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR)*. (2002). Assets Cambridge. Access in the Internet: <http://assets.cambridge.org/052180/3136/sample/0521803136WS.pdf>
- The Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR)*. (2008). COE. Access in the Internet: http://www.coe.int/t/dg4/linguistic/source/framework_en.pdf.
- Tūtlys V., Spūdūtė I. (2011). Implementing a national qualifications framework in Lithuania. *Journal of Education and Work*, Volume 24, Iss. 3–4, Routledge: Taylor and Francis, 429–448.

Language editor:
Prof. dr. Nemira Mačianskienė

Vidmantas Tūtlys – socialinių mokslų daktaras, Vytauto Didžiojo universiteto docentas, Profesinio rengimo studijų centro vadovas, vyresnysis mokslo darbuotojas. Mokslinių tyrimų sritys: profesinio rengimo politika, kvalifikacijų sistemų plėtra, darbo rinkos politika, darbuotojų tęstinio profesinio mokymo plėtra, migracijos poveikis mokymuisi ir profesiniam tobulėjimui.

Adresas: Vytauto Didžiojo universitetas, Socialinių mokslų fakultetas, Jonavos g. 66-205, LT-44191.
El. paštas: v.tutlys@smf.vdu.lt

Genutė Gedvilienė – socialinių mokslų daktarė, Vytauto Didžiojo universiteto profesorė. Mokslinių tyrimų sritys – suaugusiųjų mokymasis visą gyvenimą, bendrosios kompetencijos.

Adresas: Vytauto Didžiojo universitetas, Socialinių mokslų fakultetas, Edukologijos katedra, Jonavos g. 66-313, LT-44191, Kaunas.
El. paštas: g.gedvilienė@smf.vdu.lt

Vidmantas Tūtlys – Doctor of Social Sciences, Associate Professor in Vytautas Magnus University, head of the Centre for Vocational Education, senior researcher. Research areas: vocational training policy, development of qualification systems, labor market policies, workers' continuing vocational training development of employees, impact of migration on education and professional development.

Adress: Vytautas Magnus University, Faculty of Social Sciences, Jonavos g. 66-205, LT-44191.
E-mail: v.tutlys@smf.vdu.lt

Genutė Gedvilienė – Doctor of Social Sciences, a Professor in Vytautas Magnus University. Research areas – adult education, lifelong learning, key competences.

Address: Vytautas Magnus University, Faculty of Social Sciences, Department of Education Sciences, Jonavos g. 66-313, LT-44191, Kaunas.
E-mail: g.gedvilienė@smf.vdu.lt