РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

SERRA Giovanni[2]
Roma Tre University
Rome, Italy

ORCID: 0009-0004-2443-4660
E-mail: giovanni.serra@uniroma3.it

LEARNING FOR CHANGE:
THE STRATEGIC COMPETENCE TO BE
LIFELONG LEARNER ADULTS IN THE TIME OF
PERMANENT TRANSFORMATIONS

The publication considers such questions as presents the challenge of changes and complexity, a dynamic construct of competence, transversal and strategic competences, learning to learn as a strategic competence. The publication presents a series of dimensions through which the training/educational purpose of learning to learn is expressed.
Keywords: *Lifelong Education, Organization, Online Education, Trends.*

Навчання заради змін: стратегічна компетентність бути дорослими, які навчаються впродовж життя, у час постійних трансформацій. *Розглянуто такі проблеми, як виклик змін і складності, динамічний конструкт компетентності, наскрізні та стратегічні компетентності, вміння вчитися як стратегічна компетентність. Представлено низку вимірів, через які виражено освітню мету навчання вміння вчитися. Зазначено, що відправною точкою є усвідомлення того, що світ, у якому ми живемо, стає дедалі складнішим, взаємопов'язаним і мінливим. Наголошено на тому, що зміни впливають на комунікацію, спосіб життя, економіку, технології, виробничі системи та ринки праці й відбуваються в контексті глобальних явищ, які чинять тиск на суспільства. Зосереджено увагу на тому, що розв'язання складних проблем потребує здатності приймати різні точки зору, інтегрувати методи, підходити до проблем інноваційно. Звернуто увагу на складові виміри стратегічної компетентності: біографічний, метакогнітивний, когнітивно-символічний та соціально-емоційний. Стверджено, що ці виміри є компасом для побудови освітніх траєкторій і середовищ, завдяки яким люди вчяться керувати власним навчанням з плином часу і активно реагувати на зміни в цьому контексті.*
Ключові слова: *освіта впродовж життя, організація, онлайн-освіта, тенденції.*

The challenge of changes and complexity. The starting point is the consideration that the world we live is more and more complex, interconnected and changing. The changes affect communication, lifestyles, the economy, technologies, production systems, and labour markets, and they occur in a context also characterised by global phenomena that pressurise societies. I am referring to migration, climate change and, especially in Europe, an ageing population.

Added to all this are other stress factors that have affected people's lives in recent years, generating uncertainty: the economic crisis of 2008, the Covid-19 pandemic and, recently, the war in Ucraine and the energy crisis.

---

[2] ©СЕРРА Джованні (SERRA Giovanni)

РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

Changes are a great challenge for education systems. In a world that is constantly and rapidly changing, acquired knowledge and skills quickly becomes obsolete. This means that what people learn in education gradually becomes less useful for understanding reality and acting in it.

Another characteristic of the time we live in is complexity. It appears increasingly clear that human, social, economic, political, technological and environmental facts are not independent and cannot be understood and addressed if observed as isolated phenomena. Everything is connected, everything is interdependent. Relying on technical rationality [14] to deal with complex problems in a deterministic and specialized way increasingly leads to ineffective or even harmful solutions. Tackling complex problems requires the ability to adopt different points of view, to integrate methods, to approach problems in an innovative way. This does not mean giving up specialization, but it means placing specialization at the service of collaboration between different paradigms, epistemologies and methodologies. Yet we must ask ourselves: are our educational paths oriented towards complexity? Do we educate our students at various levels to understand interconnections and interdependencies? And how much is the culture of adults living in our societies conditioned by the practices of the media and social networks that fuel simplification? These are problems that do not only concern those involved in humanistic studies. The need to adapt to changes and navigate complexity also concerns those who work in technical sectors and those who study to do so.

An education for change and complexity is essential for individuals, to guarantee their employability over time, and it is essential for societies, to protect democracy and fully human development.

In our research at the University of Roma Tre, we are questioning the individual competences that can facilitate adults in managing change and uncertainty and how to promote their development.

To answer these questions it is first necessary to focus attention on the concept of competence and overcome some misunderstandings regarding it.

A dynamic construct of competence. Let us therefore take three definitions of competence into consideration, the first of institutional origin, the second coming from a work sociologist and the third from an educational psychologist.

According to the Council of the European Union (2018) [16], competences are defined as a combination of knowledge, skills and attitudes, where: knowledge is composed of the facts and figures, concepts, ideas and theories which are already established and support the understanding of a certain area or subject; skills are defined as the ability and capacity to carry out processes and use the existing knowledge to achieve results; and attitudes describe the disposition and mind-sets to act or react to ideas, persons or situations. From this definition it follows that competence is a complex construct, made up of a

РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

combination of different components. Incidentally, note that it is wrong to confuse competence with skills, as these are one of the components that constitute it.

The second definition is the one proposed by Guy Le Boterf, a work sociologist who is among the most important scholars on the topic of competences. According to Le Boterf (2000) [6], a person knows how to act competently, if they: knows how to combine and mobilise a set of relevant resources (knowledge, know-how, quality, resource networks, etc.); to carry out, in a particular context, professional activities according to certain professional requirements; in order to produce results (services, products) satisfying certain performance criteria for a recipient (client, user, patient, etc.). From this definition, it emerges that to be competent it is not enough to possess certain resources, but it is necessary to know how to combine and mobilise them. Therefore, competence does not consist in a sum of resources, but in their mobilisation to give life to an action that generates socially recognised results. From an educational perspective, this means that to train competent people it is not enough to provide them with knowledge or even skills, if they do not develop the ability to mobilise and combine them adequately for a desired purpose.

The third definition is from Michele Pellerey, an educational psychologist. From his point of view, competence is defined as the ability to cope with a task or set of tasks, managing to set in motion and orchestrate one's own cognitive, affective and volitional resources and to use the external ones available, in a coherent and fruitful way [9]. This definition is similar to that of Le Boterf, but it is clearer that to act competently people must be able to mobilise not only their own internal resources, but also those of the context in which they operate. For this reason, the combination of different resources is not always the same and must be the result of a creative, adequate and fruitful «orchestration».

As a result of these different perspectives, we have adopted a construct of competence that has at its center the subject's proactive capacity and agency [5]. The subject examines the task to be carried out and the characteristics of the context and proactively, drawing on both his own personal resources and the social and operational resources available in the context, selects, mobilizes and orchestrates the most appropriate resources in order to produce a result that is recognised effective by a recipient.

Increasingly, in the context of post-industrial and constantly evolving society, the resources to be mobilised in competent action cannot be standardised combinations. They can be better represented as constellations of resources, the activation of which depends on the goal of the action and the characteristics of the context or situation [11]. Mobilising the most adequate resources also presupposes the ability to reflect during the action and on the action [14] and to attribute meaning to one's own and others' actions [3].

РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

However, it should be noted that this process does not have to happen every time a certain task is performed. Based on experience, a competence can be routinised and become itself a resource that is mobilised in the exercise of more complex competences.

Moreover, thanks to the proactive character of the competence, by means of reflection and often in a process of problem solving, competence can be transferred from a context to another. In this process, by means of the analogical thought, internal resources are re-orchestrated according to the external resources of the new context and to the performance required. This process works on the basis of what Shön calls «reflection in action».

Transversal and strategic competences. Many studies have highlighted that some transversal competences are essential to live and thrive in the changing society [4, 8, 12, 16]. According to OECD (2015) [8], in order to ensure the well-being and development of people, multidimensional competences are needed that include both the area of cognitive processes and socio-emotional elements [13]. Sánchez Puerta et al. (2016) recognise that socioemotional competences predict a range of important life outcomes and have «a strong influence on schooling decisions, employment, work experiences, occupational choice, and wages, while simultaneously minimizing risk behaviours (such as smoking, participation in illegal activities, and unplanned pregnancy)».

In the 2018 revision of the Recommendation on key competences for lifelong learning, the Council of EU introduced a new competence, called Personal, Social and Learning to learn competence (PSL), that integrates the Learning to learn key competence of the previous framework with a wider scope on personal and social development. The PSL competence has been described as follow: the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career. It includes the ability to cope with uncertainty and complexity, learn to learn, support one's physical and emotional wellbeing, to maintain physical and mental health, and to be able to lead a health-conscious, future-oriented life, empathize and manage conflict in an inclusive and supportive context [16].

As defined, PSL competence includes metacognitive and socio-emotional dimensions and is considered essential to take care of one's well-being and personal development, being able to face transformations and manage uncertainty, in complex and changing contexts of interaction.

Caena (2019) [4] identifies three core, intertwined elements that underpin PSL competence: Self-regulation, Empathy and Growth Mindset. The first element refers to the ability to manage oneself in a complex context, being able to adapt to the context and take care of one's own well-being. Being able to recognise and govern one's own emotions, thoughts and behaviour enables people to adopt flexible strategies, not letting themselves be overwhelmed by changes and accepting them as opportunities.

РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

The second element, Empathy, refers to the ability to recognise and tune in to the thoughts and emotions of others, being open to understanding points of view other than one's own. This support the communication and cooperation competences, and allows people to calibrate their behaviour in contexts characterised by multiple, not always predictable interactions.

The growth mindset, which is intertwined with the motivation to act, is nurtured by the drive to meet three fundamental human needs [10]: the need for autonomy, the need for mastery and the need for meaningful relationships. It supports a sense of self-efficacy [2] and provides people with the energy they need to face the challenges of learning and personal development. Growth mindset also nurtures critical thinking (metacognitive competence), which is expressed in divergent thinking and creativity as well as in analytical and convergent thinking [4].

PSL competence is, therefore, an extremely valuable resource for dealing with uncertainty, both in terms of emotional and social management, and in terms of activating cognitive processes geared towards managing complexity and cognitive flexibility.

All these competences are transversal across different disciplinary and practice areas; they are above all strategic competences, as they allow the valorisation of different personal resources in different and changing contexts and situations [7] and, therefore, to effectively exercise the other competences.

Learning to learn as a strategic competence. Alberici's (2008) [1] studies have highlighted that the construct of strategic competence can be characterized by two aspects, autonomous but not independent. The first is the functional value: competence is to be considered strategic if it includes «that knowledge that is necessary for individuals to be able to live in societies with a high cognitive value». The second is the generative value: competence is to be considered strategic if it refers to «second level learning which, acting on the terrain of the construction of thought and the transferability of competences, represents the condition for the realization [...] of human capability» in a lifelong dimension. From this perspective, the strategic nature of the learning to learn competence clearly appears, which takes on the function of a metacompetence thanks to which other competences can be generated, in response to the challenges of life and change.

In this context the problem arises of how to encourage the development of strategic competence in learning to learn.

Still referring to Alberici's studies, it may be useful to recall «a series of dimensions through which the training/educational purpose of learning to learn is expressed:

− the biographical dimension: ability to recognize oneself, to attribute meaning, to orient oneself, to plan, to choose;

− the dimension of metacognition: strategies relating to the restructuring of schemas (awareness of acquired cognitive schemas, dialogue with the situation, discovery and

РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

diagnosis of the problem, adaptation of knowledge to environmental demands, control of the processes implemented), willingness to create new knowledge, to manage competences in a self-regulated way and to reinvent competences;

− the cognitive-symbolic dimension: symbolic competence relating to verbal understanding and logical reasoning (literacy, numeracy);

− the social and emotional dimension: relating to the exercise of intelligence and emotional skills and the ability to relate, communicate personally and interpersonally in different contexts» [1].

According to Stringher (2008) [15], learning to learn must be considered a higher order meta-competence, since it performs a coordination and orchestration function of other skills and competences. This meta-competence can be defined as a regulatory function of learning, thanks to which the individual acquires an increasingly greater power of control over his own learning process.

It is a complex construct, whose main components are self-regulated learning, dispositions to learn, the affective-motivational dimension of learning and the social dimension of learning.

By introducing this last dimension, the socio-constructivist perspective is recalled, according to which learning is a social process of construction of meaning.

Stringher also underlines that this meta-competence has an evolutionary dimension and can develop in a lifelong perspective.

These dimensions can - and should - be given particular attention in the design of educational paths at various levels and should also guide the design of information-educational environments aimed at integrating programs and tools for face-to-face education and those for independent learning.

Conclusions. The time we live in is characterized by continuous and accelerated changes, in the face of which knowledge and skills acquired by people in educational paths – both those for work and social ones and for citizenship – are destined to rapid obsolescence. If, however. we consider the concept of competence not as a simple practical skill, but as knowledge in action, characterized by the proactivity with which internal and external resources are mobilized to produce results, the construct of strategic competence and, in particular, the learning to learn strategic competence is highlighted, thanks to which new competences can be built by the subject, in response to changes in the context. Learning to learn strategic competence can be developed through attention to its constituent dimensions: the biographical dimension, the metacognitive dimension, the cognitive-symbolic dimension and the social and emotional dimension. These dimensions constitute the compass for building educational paths and environments thanks to which people will learn to manage their own learning over time and respond with agency to changes in the context.

РОЗБУДОВА ЄДИНОГО ВІДКРИТОГО ІНФОРМАЦІЙНОГО ПРОСТОРУ ОСВІТИ ВПРОДОВЖ ЖИТТЯ
Шостий Міжнародний науково-практичний WEB-форум
26-29 березня 2024 року. Київ-Харків, Україна

Список використаних джерел / References:

1. Alberici A. La possibilità di cambiare. Apprendere ad apprendere come risorsa strategica per la vita. Milano : FrancoAngeli, 2008. 160 p.
2. Bandura A. Toward an agentic theory of the self. *Advances in Self Research, Vol. 3: Self-processes, learning, and enabling human potential /* H. Marsh, R. G. Craven, & D. M. McInerney (Eds). Information Age Publishing, 2008. P. 15–49.
3. Bruner J. La ricerca del significato. Per una psicologia culturale (E. Prodon, Trad.). Bollati Boringhieri. (Original work published 1990). 1992. 154 p.
4. Caena F. Developing a European Framework for the Personal, Social & Learning to Learn Key Competence (LifEComp) : Literature Review & Analysis of Frameworks / Punie, Y. (ed). Publications Office of the European Union, 2019. 59 p. DOI: https://doi.org/10.2760/172528, JRC117987.
5. Eteläpelto A., Vahasantanen K., Hökkä P., & Paloniemi, S. What is agency? Conceptualizing Professional Agency at Work. Educational Research Review. 2013. № 10. P. 45–65.
6. Le Boterf G. Costruire les Compétences Individuelles et Collectives. Éditions d'Organisation, 2000. 302 p.
7. Montedoro C. Competenze strategiche e dimensioni epistemologiche dell'azione formativa. *Apprendimento di competenze strategiche. L'innovazione dei processi formativi nella società della conoscenza* / ISFOL, FrancoAngeli. Milano, 2003.
8. OECD. Skills for Social Progress: The Power of Social and Emotional Skills. Paris: OECD Publishing, 2015. DOI: http://dx.doi.org/10.1787/9789264226159-en.
9. Pellerey M. Le competenze individuali e il portfolio. Firenze: La Nuova Italia, 2004. 290 p.
10. Ryan R. M., Deci E. L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*. 2000. Vol. 55. P. 68–78.
11. Rychen D. S., Salganik L. H. Agire le competenze chiave. Scenari e strategie per il benessere consapevole. Milano: FrancoAngeli, 2007.
12. Sala A., Punie Y., Garkov V., Cabrera M. LifeComp. The European Framework for Personal, Social and Learning to Learn Key Competence. Publications Office of the European Union, 2020. DOI: 10.2760/302967, JRC120911.
13. Sánchez Puerta M. L., Valerio A., Gutiérrez Bernal M. Taking Stock of Programs to Develop Socioemotional Skills. A Systematic Review of Program Evidence. Washington: The World Bank. 2016. 201 p.
14. Schön D. A. Il professionista riflessivo. Per una nuova epistemologia della pratica professionale / A. Barbanente, Trad. Edizioni Dedalo, 1993. 368 p.
15. Stringher C. Una mappa di navigazione per l'apprendere ad apprendere. Alberici A. *La possibilità di cambiare. Apprendere ad apprendere come risorsa strategica per la vita.* FrancoAngeli, 2008.
16. UE. Recommendation of the Council of 22 may 2018 on key competences for lifelong learning 2018. C. 189/01. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018H0604%2801%29 (date of assess: 06.05.2024).