

CREATIVITY AND THE 8 KEY-COMPETENCES: THE SKILLS NEEDED FOR A MODERNISING WORLD

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Rezumat. Lumea în care trăim astăzi este una în continuă schimbare, probabil mai mult ca niciodată. Cu trei decenii în urmă, în contexte asemănătoare, ideea unor competențe transversale care să ofere flexibilitate corpului cetățenesc a luat naștere și a fost ulterior preluată de Uniunea Europeană. În acest context apar și se dezvoltă, odată cu schimbările din jur, cele 8 Competențe Cheie pentru Învățarea pe Tot Parcursul Vieții. Trecând în revistă principalele modificări ale conceptului și plecând de la documentele și studiile Europene și modul în care poate afecta interacțiunea între oameni și schimbările din jurul lor, consider că în final, unul din modurile prin care cele 8 competențe pot fi pozitiv insuflate este creativitatea. Având în vedere faptul că din multe puncte de vedere, efectele creativității asupra experienței umane se intercalează deseori cu efectele pozitive care sunt dorite odată cu preluarea celor 8 competențe-cheie, aceste concepte pot avea un rol benefic unul pentru celălalt, fie în anii de școală, fie în cei ce urmează.

Cuvinte-cheie: competențe cheie, învățarea pe tot parcursul vieții, politici europene.

CREATIVITATEA ȘI CELE 8 COMPETENȚE CHEIE: APTITUDINILE NECESARE PENTRU O LUME ÎN MODERNIZARE

Abstract. The world in which we live today is continuously changing, maybe now more than ever. Three decades ago, in similar contexts, the idea of transversal competences that may offer flexibility to the citizens came into being. Later on, as it was adopted the European Union, it evolved and was inserted as one of the main points of educational policy, becoming the 8 Key Competences for Life-Long-Learning. As we explore the evolution of the concept and its role in the society of the European Union, especially in our day, one of the conclusions that we reach is the possible role of creativity in gaining the key competencies and using them to their fullest throughout our lives. As the positive effects of creativity interlock with those of the key competences, I dare to think that these concepts can have a beneficial role if used together, be it in the classroom, or outside of it.

Key-Words: Key Competences, Life-Long Learning, Creativity, Educational Policy.

In today's world, the 8 key-competences are a main subject of both formal education policy and informal educational activities throughout the European Union. It is the main educational framework that is used to quantify and categorise the skills, knowledge and ways of thinking that should be achieved during schooling. One of the core human traits that may help not only achieve, but to also properly use these competences is creativity. In this article we will follow first a short history of the *key-competence* concept, how it was created and how it started being adopted by the European Union and step-by-step, its member states. Furthermore, we will explore how

the key competences can positively affect the way we interact with the changes around us and lastly, how creativity can be linked to the key-competences.

The Key-Competence: Their Conception, Evolution and their Use in Today's World

The European Union, through its education policy, has made lifelong-learning (from here on, LLL), one of its core concepts, alongside the key-competences that enable it. This decision does not come out of nowhere, and behind it lies an important web of social and macroeconomic factors of the early 2000's.

From an economic point of view, it has been argued in 2007 that the basic, binary model of mirroring, on one side, the neo-liberal system correlated with America, and on the other, with the social market economies like Germany, is not as correct as it has been thought. Before that point, it has been perceived that these two types of societies are antagonistic to each other, and that they represent opposing sets of benefits: economic growth versus social cohesion for example. But, Andy Green, in his 2007 article argues that it does not have to be that way, and that social cohesion and economic growth can be sustained if one element is added: lifelong learning [6]. The Nordic case is given as example, compared to other types of knowledge economies, such as the English-speaking world or the core-European part that includes Germany, Austria and the Netherlands among others. It has been shown that through adult participation in the process of honing one's knowledge and skills provides not only the social cohesion and pay equality of a social market system, but it also helps tip the scales in the economic growth department, through low unemployment. Thus, the author argues that such a model can be used to give the European Union that edge it needs to become competitive in an ever-changing world [6].

And it is in this exact context that the union has reached the conclusion that the thing that should give it the edge in today's international context is being the forefront of the knowledge-based economy. It wanted to do this not only through excellence in the sciences and innovation, but also in the flexibility of the human capital. The context analysed by Stavros Moutsios in 2007 showed that this is a reaction to an ever-changing market of jobs and of opportunities, a context that needs flexible and creative people that can face these changes. The target is to have a corps of citizens that are lifelong learners of useful information that can be used in multiple scenarios, of human capital that is ready to face the new realities that change every single day [7, p. 18 - 22]. If that is true for 2007, it is certainly even more applicable now, when new technologies such as AI change the way we work from one year to the other. Thus, a look at the evolution of the key competences and LLL concepts is in order, from the first sketches of the concept up until our day.

In the face of the changes that come from modernisation and globalisation, the life-long-learning concept has been created by the Organisation for Economic Co-Operation and Development (from here on, OECD). In 1996, in the process of honing the PISA programme, they came up with some key competences that are needed not to tackle normal, routine situations, but complex contexts in which multiple psychosocial processes are needed to be put to use. The main reasoning of the organisation was that globalisation and modernisation are creating an increasingly diverse and interconnected world and that in order to achieve a balance between economic well-being and social cohesion, the corpus of citizens need to be mentally equipped with the competences that will fulfil the more complex goals of today's society [8, p. 4]. One of the first questions that came up was „*What is a key competence, what would be its function?*” and the answer was threefold:

- It needs to contribute to valued outcomes for societies and individuals;
- It helps individuals meet important demands in a wide variety of contexts;
- It is important not only for specialists, but for all individuals throughout society [8, p. 4].

The competencies laid out in the OECD report are different to the ones that are used today in the European Union, and they are broader. Three in number, they are: (1) the capacity to use tools interactively (tools including languages, knowledge and technology), (2) the capacity to interact in heterogeneous groups, to communicate, socially coagulate and (3) the ability to act autonomously, but not alone, and know one's contexts and social surroundings [8, p. 5].

The main points that were stressed in the OECD report on key competences and LLL was that (1) the process of reflection is important and (2) the competences need to be used together in order for results to be seen. First of all, reflection sits at the core of the key competencies because they are ingrained only when they have been put to the trial of metacognitiveness, of thinking about the processes, of analysing what went wrong and what went right, and to change their use according to future situations. The other, combining competencies, is also vital because the contexts of today's world are liable to ask the modern citizen to make use of numerous key competencies to approach a problem [8, p. 8 – 9]. Thus, what stood at the heart of this concept's creation was the uncertainty and rapidity of everything happening in the world, things that are permeating today's world tenfold.

As the European Union faced the changes laid out in the 2007 articles, it adopted this framework into its educational policy, which can be traced in its recommendations and policy documents from the past 2 decades. The first recommendation to tackle LLL was the 2006 European Commission Recommendation on Life-Long-Learning, in which the first sketch of the EU model of the concept was drawn. After the Lisbon European

Council from 2000, it has been decided that the union needs a framework of LLL and a basic definition of the concepts included so policy can be drawn upon it throughout the alliance.

The reasons for the draft of this recommendation were, broadly, the same ones as put out by the OECD almost a decade before: the changes in the world that need more flexible and, thus, the need of better mentally equipped citizens to face them. Increased teamwork, flattened hierarchies and devolved responsibilities have been mentioned as some of the changes. Thus, the union's response was the draft of a common European reference framework that can be used as basis for further policy in the future. Through this, they wish that throughout the alliance certain things are ensured for people engaged in the educational process:

1. Initial education and training that offers young people the means to develop their key competences to a level that equips them for adult life, and which forms a basis for further learning and working life;
2. Appropriate provision made for young people who, due to educational disadvantages caused by personal, social, cultural or economic circumstances, need particular support to fulfil their educational potential;
3. Adults being able to develop and update their key competences throughout their lives, there being a particular focus on target groups that are identified as priorities in the national, regional and/or local contexts, such as individuals needing to update their skills;
4. Appropriate infrastructure for continuing education and training of adults, including teachers and trainers, validation and evaluation procedures, measures aimed at ensuring equal access to both lifelong learning and the labour market, and support for learners that recognises the differing needs and competences of adults, is in place;
5. Coherence of adult education and training provision of individual citizens is achieved through close links with employment policy and social, cultural, innovation policy and any other that affect young people. [3, p. 4]

Through these methods, the European Union Commission wishes to get to the point in which social cohesion, well-being, active citizenship and employability are core parts of the society. The way that they thought this to be achieved is by the 8 key competences that are familiar to European Union members educational policy, initially a bit different than today: (1) Communication in the mother tongue; (2) Communication in foreign languages; (3) Mathematical competence and basic competences in science and technology; (4) Digital competence; (5) Learning to learn; (6) Social and civic competences; (7) Sense of initiative and entrepreneurship and (8) Cultural awareness and expression [3, p. 4].

Each of these competences are made out of 3 components: knowledge set, skills and attitudes, each being described for each competence. For example, the first competence, of communication in the mother tongue, requires (1) the knowledge set of grammar, syntax and literature; (2) the skill of differentiating between different styles of speech and (3) an attitude that denotes an openness to dialogue and discussion and appreciation of aesthetic qualities [3, p. 4].

This theoretical framework has more purposes: to be the base for the *LLL* of the young graduates' toolkit at the end of their studies and to provide a base for future policy works and evolution in the field. Throughout the years, it has suffered some small changes, but ever since then it has indeed served as basis for European educational mind set.

The year of 2018 marked the update of the 8 key competencies concept through two main documents: an European Council Recommendation akin to its 2006 counterpart and a document which outlines practicalities of including the key competencies into the curriculum. The context of the change comes from the same origin as its predecessors: constant change of the world that we live in, and for 2018 that meant the rise of automation and the crescent need of social and civic competencies in order for the citizen corps to adapt to the new conditions in a socially cohesive way. At the same time, there were growing fears regarding the PISA results, especially in the digital competencies unit, where almost 70% of the population held low or no digital skills, which is a reason why these, alongside entrepreneurial and linguistic competencies, are in the focus of the European Commission in this document. It is furthermore stressed that soft skills, such as critical thinking, problem solving and the ability to cooperate are vital to use the knowledge that we have and to be flexible in these changing times [4 p. 1-3].

Besides the new and updated reasoning of the Commission, the theoretical tweaks that they made in the document are more for clarity and are 2 in number. First off, they gave a clear definition to the *knowledge*, *skill*, and *attitude* concepts, in short representing the facts and figures; the abilities and capacities to carry out processes and respectively, the disposition and mind sets to act and react to certain stimuli. Secondly, they slightly changed the competencies, as now the social aspect is included in the *Learning to learn* competence and the civic aspect has its own new competence: *Citizenship competence* [4, p. 7 - 8].

But one of the biggest changes to this programme in 2018 was the change from mere theoretical and open to a more pragmatic one through an additional document that was released: *Key Competences for Lifelong Learning in European Schools*. This document not only gave a clear review and definition of these competences and where they can be included in the curriculum (*vide* fig. 1, 2) but also good practices from all areas of schooling, from nursery schools all the way to upper secondary schooling. The

reasoning for this came from the fact that yes, the European Commission has done a good job to clearly theorise these competencies and to make a framework for education policy-makers, but cohesion and consistency was lacking. Thus, teachers and policy makers in each independent country could use a more practical tool for their educational endeavours and it marks a change in perspective, from mere theoretical to pragmatic in nature [10].

Transversality and *active schooling* take central stage in this document, as it is presented as one of the ways in which the key competencies are best attained by the pupils. Extra-curricular activities that have a subject in mind, such as historical field-trips or projects, come out with civic and social benefits for example, besides the usual knowledge set that would come from such an activity. Digital tools are also highly encouraged to be used, given the context and time that it was written in [10, p. 11 – 17].

Literacy competence	Literacy is the ability to identify, understand, express, create and interpret concepts, feelings, facts and opinions in both oral and written form, using visual, sound/audio and digital materials across disciplines and contexts. It implies the ability to communicate and connect effectively with others in an appropriate and creative way. Development of literacy forms the basis for further learning and further linguistic interaction. Depending on the context, literacy competence can be developed in the mother tongue, the language of schooling and/or the official language in a country or region.	Digital competence	Digital competence involves the confident, critical and responsive use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, digital content creation (including programming), safety, (including digital well-being and competences relating to cyber security), and problem solving.
Multilingual competence	This competence defines the ability to use different languages appropriately and effectively for communication. It broadly shares the main skill dimensions of communication of literacy: it is based on the ability to understand, express, and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts according to one's wants or needs. As appropriate, it can include maintaining and further developing mother tongue competences. A learner's level of proficiency will vary between the four dimensions and between the different languages.	Personal, social and learning to learn competence	Personal, social and learning to learn competence is 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 well-being, empathise and manage conflict.
Mathematical competence and competence in science, technology and engineering	Mathematical competence is the ability to develop and apply mathematical thinking in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought (logical and spatial thinking) and presentations (formulas, models, constructs, graphs and charts). Competence in science refers to the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions. Competences in technology and engineering are applications of that knowledge and methodology in response to perceived human wants or needs. Competence in science, technology and engineering involves an understanding of the changes caused by human activity and responsibility as an individual citizen.	Civic competence	Civic competence is the ability to act as responsible citizens and to fully participate in civic and social life, based on understanding of social, economic and political concepts and structures, as well as global concepts and sustainability.
		Entrepreneurship competence	Entrepreneurship competence refers to the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking, and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or commercial value.
		Cultural awareness and expression competence	Competence in cultural awareness and expression involves understanding, and having respect for, how ideas and meaning are creatively expressed and communicated in different cultures and through a range of arts and other cultural forms. It involves being engaged in understanding, developing and expressing one's own ideas and sense of place or role in society in a variety of ways and contexts.

Figure 1. The 8 key competences for life-long-learning, as put out by the *Schola Europae* after the 2018 re-work

Detailed descriptions of each has been given this time, alongside specific knowledge sets, skills, attitudes, and what classes or subjects can include them. Moreover, a curriculum-model on how to integrate the key competencies has been added as well at the end of the same document in order to enhance cohesion and coordination to boost the theory proposed by the union [10, p. 21].

Multilingual competence	
Table 4: Multilingual competence	
<i>This competence defines the ability to use different languages appropriately and effectively for communication. It broadly shares the main skill dimensions of communication of literacy: it is based on the ability to understand, express, and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts according to one's wants or needs. As appropriate, it can include maintaining and further developing mother tongue competences. A learner's level of proficiency will vary between the four dimensions and between the different languages.</i>	
Essential Knowledge	Where in the curriculum?
<i>Students know about</i>	
An appropriate range of vocabulary	L1 to L5 (All levels); Subject-specific vocabulary in all subjects
Functional grammar	
The main types of verbal interaction	General student interaction
Different styles and registers of language	Varied methodologies used in all subjects, especially L1 to L4; Discover the World (P)
How language and culture vary in different contexts	
The role of language in their own and other cultures	European hours (P); Discovery of the World (P)
Societal conventions	European hours (P); extra-curricular activities; students' families
Core skills	Where in the curriculum?
<i>Students should be able to</i>	
Understand spoken messages in the foreign language	
Initiate, sustain, and conclude conversations	
Read, understand and produce texts, including digital texts, appropriate to their needs	
Use tools appropriately and engage with languages formally, non-formally and informally	
Monitor and adapt their own communication to the requirements of the situation	
Appreciate how cultural differences influence language use and communication	
Attitudes	Where in the curriculum?
<i>Students value</i>	
Learning new languages	
Cultural diversity	
The role of languages in learning about their own and other cultures	
Intercultural communication	
Respect for each person's individual linguistic profile	
Respect for the mother tongue of persons belonging to minority groups and those with a migrant background	

Figure 2. An example of the details given for each competence, its essential knowledge, skills attained and attitudes, as well as its place in the curriculum [10, p. 41-42]

That being the context of 2018, things have changed in the world since then. A global pandemic which pushed for further (and in some cases, forced) digitalisation; the rise of extremism; social and economic insecurity; and the advent of Artificial Intelligence makes it an environment faster-changing than ever. The flexibility in mind set and skillset that has been put forward in theory for the past 30 years by world organisations becomes more important than ever, and it seems like the key competencies

are one of the ways that these changes can be overcome through education, both in school and in adult life.

At this moment, AI is on everyone's lips and screens and is being used in more and more situations, from banal to complex. Although a source of ready-made knowledge tailored to specific queries may sound amazing at first glance, it is a dangerous tool if not used properly. It has been showed how AI, although useful if used properly, it is equally or even more dangerous if not. On one hand, misinformation abounds on these platforms and people are more and more liable to fall to it. Furthermore, it has been shown that it can trick even educated people such as stock market investors [article Psych Today]. Thus, proper education in this field and the transversal honing of both literacy and digital skills is necessary. Even in 2018, *checking the validity, reliability and impact of data made available by digital means*, was put on the list of necessary skills [10, p. 29]. The overall critical skills of the literacy competence is't also indispensable in this new context we face.

In the same timespan that AI has taken rise, extremism has also gained more of a foothold in Europe, especially among youth. It has been shown through a Dutch study that the careful use of educational methods that inspire the civic competence can have positive effects on secondary-school students [article extremism II]. As for the socio-economic problems, the entrepreneurship competence helps by inspiring pupils to gain better planning and management and especially, coping with uncertainty, ambiguity and risk [2 p. 21].

As the key competences are now as important as ever to be inspired upon young pupils in order to mitigate the effects of constant change in our world, there is also a need to find ways to do so, in as many ways as possible. And one of the ways these competences, especially when it comes to the soft skills and mind sets, sits in one crucial human trait: creativity.

Creativity as an Integral Part of Fostering the Key-Competences

There are multiple ways in which creativity shapes our life, and a number of ways have been described by Jill Forster in his article, *The Significance of Creativity in Our Lives*, in which he writes out all the major ways that creativity helps throughout our activities: risk-taking, analysis and flexibility being just some of them. From my point of view, his points coincide with the way the 8 key competences, and as such, creativity may serve as a catalyst for their appropriation by someone, especially schoolchildren.

One of the main points that coincide between Forster's ideas and the context of educational policy in the European Union is the reaction to anticipation and uncertainty. In the same way that the competences are there to make sure that the corps of citizens is ready for change, creativity seems to have a similar role, according to the scholar. Giving

examples of *anticipatory assumptions*, used instead of over-reliance on previous pattern, creativity is seen as vital as it gives new perspectives and prepares for the unknown, which, as we have seen throughout this paper, appeared again and again through the past decades [5, p. 4]. Other elements that he presents are risk-taking, perseverance and innovative leadership, which are also parts of the social and entrepreneurship competences [5, p. 6–7]. Collaboration and interdisciplinary ventures, which can be, according to Forster, inspired by teachers by crossing subject boundaries and making bridges between classroom subjects and the real world, are integral parts of the social and learning-to-learn competence [5, p. 9–10].

Creativity seems to be one of the main human traits that can facilitate the acquisition of numerous life-skills that can be put under the competence umbrella and that can also help young students make more sense of the world they are fully entering once they finish their studies. Moreover, it gives them the ability to think outside the box and continue learning across boundaries for the remainder of their life. These both are important targets of the European policy in general, and creativity, it has been shown, is a skill that, even if it is seen as innate, it's a competence like any other, that can be facilitated and developed, or sometimes sadly inhibited [1]. And through *active teaching* and out-of-the-box activities, as it was put in the 2018 *Schola Europae* study, teachers can facilitate and develop, and not inhibit this skill, especially in primary school [10, p. 17].

Conclusion

Throughout this paper we have seen how, in the forever-changing world of today, the European Framework of the Key Competences seems to make the most sense, and to tackle both theoretically and practically, through a push to classroom innovation, the education of children and youth in such a way that they can become flexible, functional adults in our societies. As they become more flexible, the changes that seem to surround them may pass easier, and one way to inspire this flexibility is by also fostering creativity, in both formal and non-formal education. In this way, it seems that creativity and the key competences are interlocked, and they should benefit from a close relation in the classroom.

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