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Challenges in Education Levels of Generations

Sorin Petrică ANGHELUȚĂ^{1*}, Cristina ALPOPI²,
Mihaela Diana OANCEA NEGESCU³, Ghenadie CIOBANU⁴,
Silviu DIACONU⁵

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Abstract

Economic growth contributes to changes in education and training. Of great importance are the skills, competences and knowledge that people have when entering the labour market. The level of professional integration is influenced by these aspects. The article presents a comparative situation of the life expectancy of the population in Romania and the European Union. The amount of information is growing. In these conditions, there are all premises for people to be more informed and educated. Due to the aging of the population, measures are needed to adapt the educational process both at the basic level and throughout the life. Interest in adapting to the current demands of the labour market creates conditions for employees to participate in lifelong learning programmes. Thus, for this reason, the aspects regarding the evolution of the level of education of people of different ages are analysed. Implementation of measures to increase investment in education and training leads to a higher level of skills and competences. As a consequence, it can be seen that the number of unskilled workers will decrease. The increase in the degree of adaptability will be an advantage for the workers. They will need to anticipate the need for skills. Lifelong learning can contribute to extending people's professional lives.

Keywords: education and training, education levels, population, Romania, life expectancy.

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¹ Bucharest University of Economic Studies, Bucharest, Romania, sorin.angheluta@gmail.com.

² Bucharest University of Economic Studies, Bucharest, Romania, calpopi07@yahoo.com.

³ Bucharest University of Economic Studies, Bucharest, Romania, mnegescu@yahoo.com.

⁴ INCSMPS Bucharest, Bucharest, Romania, gciobanu01@gmail.com.

⁵ Bucharest University of Economic Studies, Bucharest, Romania, sdiaconu@gmail.com.

* Corresponding author.

1. Introduction

Worldwide, the number in population is rising (Jianu, I. et al., 2019). Growth has led to increased consumption (Rădulescu, et al., 2018). This raises questions about the possible consequences for the environment, but also for society (Bran, F. et al., 2018).

Unprecedented digital transformations have taken place in recent years, which has led to an increase in the speed of change (Jianu, et al., 2019). The complexity of the modern world has increased. People have the opportunity to be more educated due to access to an enormous, ever-expanding luggage. Also, through digital connections, people have the possibility of interactions much faster than in the past, and space is no longer a barrier (Burlacu, et al., 2018).

There are transformations in the economic, technological and social fields. Thus, measures are needed to make education more prepared for these transformations (Androniceanu, et al, 2017). Due to the aging process, the expected changes to basic education should also be the case for lifelong learning. And when we are talking about the aging process, we are talking about increasing the life expectancy of the population.

At the same time, even education can influence these trends. By providing the necessary skills to the modern world, education can become a powerful tool to reduce inequality (Ionita, & Burlacu, 2009). This can lead to changes in communities and individuals (OECD, 2019). However, an education strategy must take into account the trends that are taking place, as well as the possible ways education can evolve in the coming years. Passive observation of transformations does not lead to progress (Burlacu, 2010, 2011, 2014). Actions that (Stoica, & Burlacu, 2017) can be agreed today must be based on the dialogue and lessons learned from this dialogue (Burlacu, & Jiroveanu, 2009, 2012).

The application of measures to implement a reform in education may be somewhat resilient. Thus, the results of a reform can be visible, verifiable, or interpretable, after a good period of time since the change occurred (Wurzburg, 2010).

The lack of properly trained teachers is one of the reasons for lacking quality education (Androniceanu, & Burlacu, 2017). Another cause is determined by the conditions existing in rural schools (Burlacu, Alpopi, Mitrită, & Popescu, 2019). Quality education also involves teacher education and educational scholarships for poor children, but also improved access to water and hygiene (UN, 2019).

Personal development and widening of individual perspectives can be ensured through participation in education and training programs (Costache, et al., 2015).

Issues of economic recovery can be associated with the creation of new jobs (Burlacu, et al., 2013). The achievement of sustainable growth helps increasing social cohesion (Burlacu, & Neagu, 2007). Measures to achieve this sustainable growth must take into account the global economy, the progress made by the digital industry and the aging population.

Throughout life, in order to increase the capacity for professional integration, it is necessary to acquire knowledge, skills and competences relevant to the labour

market. At present, in the digital era, there is the possibility of acquiring knowledge, skills and competences using computer, electronic resources.

In the article, first, a survey of the life expectancy trend is made. Based on the results obtained, the data on the level of education of the persons aged 25-34 and 55-64 respectively are analysed, by comparison. The research was conducted for the information available for the past 12 years, 2007-2018 for the level of education, respectively 2005-2016 in the case of life expectancy. By comparing the data, it is desirable to identify changes in the level of education for people in the two age groups (25-34 years, respectively 55-64 years).

2. Education Levels

The improvement in the skills and competences needed by the workforce can be achieved by investing in education and training. Rapid changes in the labour market require the anticipation of skills needs. Intervention in education and training systems is also due to changes in technological flows, changes in the environment due to climate change as well as demographic changes and trends. Thus, the prolongation of professional life can be achieved through access to quality education and training programs provided through lifelong learning.

At the same time, human and civic values are preserved and passed on to future generations through education and training (EC, 2015). From this point of view, the following figure shows the evolution of life expectancy at birth for Romania and the European Union (years).

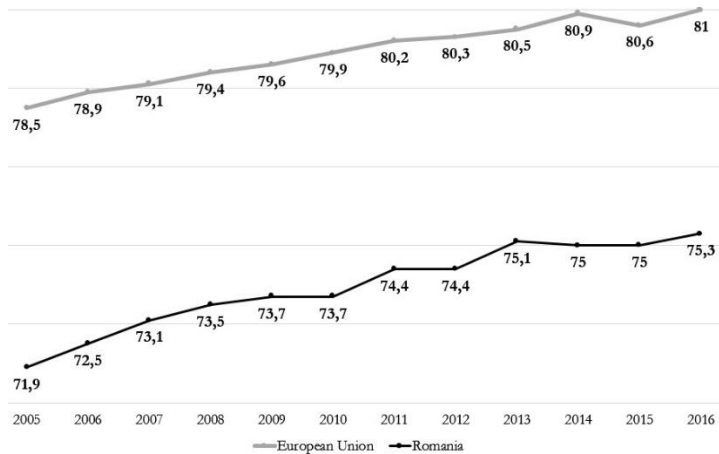


Figure 1. Life expectancy at birth

Source: Own processing according to data published by Eurostat (2019)

Figure 1 shows that for the period 2005-2016, life expectancy has an increasing trend both for the population of Romania and for the population of the EU Member States. Thus, life expectancy for the Romanian population increased from 71.9 years in 2005 to 75.3 years in 2016.

Since levels 0-2 correspond to lower than primary, lower and lower secondary levels, levels 3-4 correspond to upper secondary and post-secondary non-tertiary education, and levels 5-8 correspond to tertiary education, Table 1 presents a comparison of population by educational attainment levels for age groups 25-34, 55-64 and 15-64 respectively, for 2018, in Romania and the European Union (%).

Table 1. Population by educational attainment level, EU and Romania (%)

		25-34 years		55-64 years		15-64 years	
		2007	2018	2007	2018	2007	2018
levels	UE	20.6	15.8	41.7	29.6	32.8	25.6
0-2	RO	21.2	22.9	45.7	26.4	30.9	26.4
levels	UE	49.4	44.4	40.8	47.1	46.6	45.9
3-4	RO	62.2	52.0	45.3	64.2	59.1	58.1
levels	UE	30.0	39.8	17.5	23.2	20.5	28.5
5-8	RO	16.6	25.1	9.0	9.4	9.9	15.5

Source: Own processing according to data published by Eurostat (2019)

According to the data presented, both in Romania and the EU in 2018, the share of the population aged 55-64 with the level 0-2 of education decreased compared to 2007. Also, in 2007, the share of population aged 55-64 with the level 0-2 of education was almost the double of the population aged 25-34. At the same time, from the data analysis for the level 0-2 of education of the population in the 15-64 age group, we notice a decrease in the values for the year 2018 as compared to 2007. Considering the large period of years (from 15 to 64 years), we can assume that the new technologies applied, the new technological processes used in different products, have made individuals update their skills, acquire new skills, acquire new levels of qualification. These changes were mainly for people under the age of 55. In order to be able to continue their professional activity and to keep up with the new changes imposed by technology, they have had to follow education and training programs that have provided them with the necessary skills in the workplaces but have also offered them higher levels of education. This is particularly evident from the comparison of data on the share of the population with education level 3-4 from the 55-64 age group. In Romania and at EU level, in 2018 the weights were higher than in 2007. However, the interest of the population in higher education is noticed by comparing the data on the share of the population with the level 5-8 of education in the 25-34 age group. At the EU level in 2018, the share of the level 5-8 of education in the 25-34 age group increased by about 10% compared to 2007. In Romania, the increase was 8.5%. At EU level, growth is noticed for both the 55-64 age group and the 15-64 age group. In Romania, the increase is significant for the 15-64 age group.

Table 2 shows the population by educational level in the Member States of the European Union for 2018 (%).

Table 2. Population by educational attainment level, countries in the EU (%)

	From 25 to 34 years			From 55 to 64 years		
	levels 0-2	levels 3-4	levels 5-8	levels 0-2	levels 3-4	levels 5-8
European Union	15.8	44.4	39.8	29.6	47.1	23.2
Austria	11.3	48.4	40.3	20.7	55.8	23.5
Belgium	15.0	38.3	46.7	35.1	34.4	30.5
Bulgaria	16.5	49.4	34.2	19.4	57.2	23.4
Croatia	5.4	60.0	34.5	25.3	56.1	18.6
Cyprus	10.9	31.0	58.2	32.6	40.2	27.2
Czech Republic	6.2	60.2	33.6	9.2	73.8	17.0
Denmark	16.8	36.5	46.7	25.3	44.4	30.3
Estonia	12.2	44.0	43.7	10.9	51.8	37.3
Finland	9.3	50.5	40.2	16.0	44.6	39.4
France	13.2	40.4	46.3	32.6	43.7	23.7
Germany	13.1	54.8	32.1	13.6	60.1	26.3
Greece	12.6	44.4	43.0	44.7	33.5	21.8
Hungary	13.4	56.1	30.5	19.7	62.3	18.0
Ireland	7.3	37.4	55.3	33.1	36.2	30.7
Italy	24.3	48.0	27.7	49.9	37.1	13.1
Latvia	11.0	47.4	41.6	6.8	67.7	25.5
Lithuania	5.8	39.0	55.2	3.4	66.8	29.9
Luxembourg	12.7	34.7	52.6	33.0	40.8	26.2
Malta	30.8	30.9	38.3	70.8	19.5	9.6
Netherlands	13.1	39.4	47.5	31.7	39.5	28.8
Poland	5.6	50.9	43.5	12.1	72.5	15.4
Portugal	29.3	36.2	34.5	72.3	13.7	14.0
Romania	22.9	52.0	25.1	26.4	64.2	9.4
Slovakia	8.3	55.3	36.4	11.6	72.7	15.7
Slovenia	5.8	53.0	41.2	21.0	58.1	20.8
Spain	32.8	23.5	43.6	54.5	20.6	24.8
Sweden	12.4	39.9	47.7	19.7	48.2	32.1
United Kingdom	14.5	37.3	48.2	26.9	39.0	34.1

Source: Own processing according to data published by Eurostat (2019)

From the data presented in the table, it is noticed that the countries with the highest proportions of the level 0-2 of education in the 25-34 age group are: Spain (32.8%), Malta (30.8%), Portugal (29.3%), Italy (24.3%) and Romania (22.9%).

Also, the countries with the highest percentages of level 5-8 of education in the 25-34 age group are: Cyprus (58.2%), Ireland (55.3%), Lithuania (55.2%), Luxembourg (52.6%), United Kingdom (48.2%), Sweden (47.7%).

For the 55-64 age group, the countries with the highest proportions of the level 0-2 of education are: Portugal (72.3%), Malta (70.8%), Spain (54.5%), Italy (49.9%), Greece (44.7%).

At the same time, for the 55-64 age group, the countries with the lowest percentages of the population with level 5-8 of education are: Romania (9.4%), Malta (9.6%), Italy (13.1%), Portugal (14%), Poland (15.4%). Also, the countries

with the highest shares are: Finland (39.4%), Estonia (37.3%), Great Britain (34.1%), Sweden (32.1%), Belgium (30.5%), and Denmark (30.3%).

All sectors of the economy are affected by digital transformations in the economy and jobs. These digital transformations require the acquisition and adaptation of skills.

Thus, a competitive environment and the rapidity of technological change require highly qualified personnel.

Companies use continuous training to give employees new skills or to update existing ones.

The skills required to work in a particular profession are in constant evolution. Under these circumstances, the continuous training of employees is a way to support them in their efforts to adapt to the new requirements.

Renewal of skills is a way to adapt to changes in the labour market.

The interconnection of some activities could lead to another type of approach to the link between training and employment (Dubois & Rousset, 2017).

Considering these aspects, another important indicator analysed is the employment rate for people in the 20-64 age group.

Table 3. Employment rate, EU and Romania (%)

		2007	2017
levels	UE	56.9	54,9
0-2	RO	53.1	54.7
levels	UE	71.4	72.6
3-4	RO	65.1	68.7
levels	UE	83.8	84.0
5-8	RO	85.8	87.9

Source: Own processing according to data published by Eurostat (2019)

If for the EU the employment rate increased in 2017 compared to 2007, only for people with level 3-4 of education, in Romania the employment rate increased for the same period of time for people of all levels of education. More pronounced increases are noticed for level 3-4 of education, respectively level 5-8 of education.

We can say that the basis of sustainable development is the achievement of quality education. Thus, through education and training, besides identifying solutions to the problems of a community, the quality of life of the members of the community can be improved (UN, 2019).

3. Conclusions

The comparative analysis showed a change in time of the level of education for people in the two age groups (25-34 years, respectively 55-64 years).

It is thus demonstrated that technological changes have forced the population to become more educated. These transformations influence both the economic and

social spheres. That is why we believe that measures are needed to make education more prepared for these transformations.

The relevance of a vocational education and training system is mainly given by the response that the system gives to the demands and needs of the labour market. Also, a system of education and training must support economic and social development (Milovanovitch et al., 2018).

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