The Role of Education in the Prevalence of a Responsible and Sustainable Society in Romania

Cristian-Gabriel Ianc[1] and Ina Nimerenco[2]
1)2) Bucharest University of Economic Studies, Bucharest, Romania.
E-mail: ianccristian.g@gmail.com; E-mail: ina.nimerenco@stud.ase.ro

Abstract

The present paper aims to analyse the challenge of quality education through the lens of sustainability, providing a perspective on the current situation and how educational content needs to be updated and re-conceptualised. The construction of the paper is based on a logical path, starts from a general analysis of the current situation in the Romanian educational system, then, continues with an analysis of the potential ways in which Romania can achieve sustainable indicators through qualitative education, using for this projection a questionnaire addressed to the direct beneficiaries of the educational process. There are multiple reforms adopted that have had little effectiveness and applicability in changing the education system in Romania, and the contents do not propose a direct change through the introduction of curricula aimed at sustainability. The paper identifies strategic paths that can be implemented to adapt and operationalize quality education through sustainability. The originality of the paper consists in the application of the questionnaire and the results obtained on the need for flexibility and digitalisation of the education system, together with the study on the introduction of sustainable education and the step-by-step analysis highlighting the differences in advantage between traditional and modern ways of teaching. Possible practical implications refer to introducing and modifying the educational structure by initiating a broad process of realistic analysis based on this work.

Keywords

sustainability, education, responsibility, citizenship, youth, digitalisation, innovation

DOI: 10.24818/BASIQ/2022/08/078

Introduction

Romania currently has a traditional education system based on general sciences and concepts (Tiberiu et al 2015) that have not been updated to address the changing learning needs of the younger generation.

Quality education is intended to be delivered in an innovative format that incorporates the sustainability mechanisms of the future (Ana Maria Suduc et al, 2014). Starting from the general framework and then conducting a portrait analysis for the future of education, we aim in this paper to reveal the critical importance of education as the foundation of a sustainable future (Mariana Iatagan, 2015) and to present in a structured way what concrete methods can ensure the successful implementation of a sustainable and resilient education that will form sustainable citizens of the society of the future.

Digitisation, improved communication systems, training of teaching staff to deliver this kind of innovative education is just a first step and a practical start to the process of building a sustainable society.

The analysis we will carry out captures the current framework, then shifts the focus to a projection for the future of sustainable education.

1. How Romania achieves the goal of "quality education"

Starting from goal number 4 formulated in the SDG and assumed by Romania, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"(United Nations, 2015), the first stop we must make is the way the education system is organized, thus we observe in this first sector a perpetual trend of instability, the Romanian system being constantly reformed in recent years, the last existing valid reforms being marked in the years "2018, 2019 and 2020" (European Commission, 2022), and from 2021 the presidential project "Educated Romania". All these reform projects have done nothing but induce uncertainty among the population and uncertainty in school, high school and higher education environments.

These continuous reforms have also had concrete results, measurable through the 7 axes, and according to the attached table we can see that for the year 2020, Romania has managed to approach the European average, the best scores reported in the reference year 2015, being recorded in Early leavers from education and training (0.82%) and Underachievement in reading, maths, or science (0.99%). These results, however, do not represent the real purpose that education is supposed to serve, which is to move away from traditional learning paths and adapt subjects and curricula so that they can address the real problems of the future and develop mindsets and skills that can cope with a changing society.

Indicators		2015	2016	2017	2020	2030	2017/2015	2020/2015	2030/2015	Int.
Early leavers from education and training (% of population aged 18 to 24)	EU	11.0	10.8	10.6	9.01	4.04	0.96	0.82	0.37	NO
	RO	19.1	18.5	18.1	19.48	21.14	0.95	1.02	1.11	
Tertiary educational attainment (% of population aged 30 to 34)	EU	38.8	39.3	40.0	43.58	53.65	1.03	1.12	1.38	NO
	RO	25.6	25.6	26.3	27.86	33.27	1.03	1.09	1.30	
Participation in early childhood education (% of the age group between 4-years-old and the starting age of compulsory education)	EU	94.9	95.3	96.0	97.65	103.54	1.01	1.03	1.09	NO
	RO	87.6	88.2	87.3	87.59	88.29	1.00	1.00	1.01	
Underachievement in reading, maths, or science (source: OECD) (% of 15-year-old students)	EU	22.2	22.1 (*)	22.1 (*)	22.07	21.92	1.00	0.99	0.99	NO
	RO	39.9	37.2 (*)	36.2 (*)	33.14	22.47	0.91	0.83	0.56	
Employment rates of recent graduates (% of population aged 20 to 34 with at least upper-secondary education)	EU	77.1	78.4	80.3	76.82	74.42	1.04	1.00	0.97	NO
	RO	68.1	69.3	76.0	64.94	53.86	1.12	0.95	0.79	
Adult participation in learning (% of population aged 25 to 64)	EU	10.8	10.8	11.0	11.58	13.46	1.02	1.07	1.25	NO
	RO	1.3	1.2	1.1	1.09	0.61	0.85	0.84	0.47	
Young people neither in employment nor in education and training (% of population aged 15 to 29)	EU	14.8	14.2	13.4	14.82	15.46	0.91	1.00	1.04	NO
	RO	20.9	20.2	17.8	22.38	27.93	0.85	1.07	1.34	

Figure no. 1. SDG 4—Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all in Romania
Source: Daniela Firoiu et al., 2019, p.10

Thus, traditional ways of education and teacher centered methodologies have proved to be inefficient when applied massively (Biggs, 1999). Current reforms have focused on "quality of education, social programmes and curriculum policies" and the "Educated Romania" project is the first reform to bring resilience, STEAM education, inclusive education, digital literacy and numeracy and green schools to the fore (Guvernul României, 2021). Starting from the pre-existing reforms and continuing with Romania Educated, we see a trend showing that "The frameworks of Estonia, Romania, Sweden, Switzerland and Ukraine contain explicit elements of sustainability, but there is only low and implicit support for transformative learning for SD" (Janssens et al., 2022).

We are talking about qualitative education for sustainable development. This type of education is the functional core of the future for creating sustainable citizens and communities, and according to the learning objectives outlined by the United Nations Educational, Scientific and Cultural Organisation, the key competences to be developed through learning are: systematic thinking competence, anticipatory competence, normative competence, strategic competence, collaborative competence, critical thinking competence, self-awareness competence and integrated problem-solving competence. In its current reformed form, the Romanian education system does not address these essential dimensions for the future and does not present concrete ways in which these competences can be delivered to the beneficiaries of the educational act.

Even in the national recovery and resilience strategy, education to benefit from "six reforms implemented through 18 investment directorates with an allocated budget of €3,605 million" will adjust functional issues such as "early childhood education, reduction of school drop-out, dual education, digitisation of education, ensuring environmentally friendly safety and quality standards and professionalisation of school management in conditions of increased autonomy" (Ministerul Investițiilor și Proiectelor Europene, 2021).

Regarding higher education, "Higher education is now facing new challenges. The new generation of systems and programs duration has been shortened" (Felgueiras, Rocha and Caetano, 2017). Universities in Romania are constantly adapting their educational content so that it is in line with the European level, but the pace of updating is still slow due to the numerous bureaucratic systems involved, which is also confirmed by the fact that students consider that "there are still many institutional barriers" (Maiorescu et al., 2020) that do not allow the effective implementation of education for sustainability in universities.

2. Exploring potential ways for Romania to achieve its sustainability indicators through education

The Covid-19 pandemic has affected the whole world. Education was one of the fundamental areas that had to adapt to this pandemic resulting in a major forced unexpected change in a very short period of time. Thus, the more than 1.2 billion students, the direct beneficiaries of education, registered worldwide on 15 May 2020 (Roman and Plopeanu , 2021), were faced with many challenges. Thus, for two years now, the direct beneficiaries of education have been faced with a lack of predictability in terms of how teaching activities are carried out.

Beyond the consequences of the global Covid-19 pandemic in various sectors of activity, it must be recognised that digitisation has been a real gain. The era of digitisation in which we find ourselves has evolved further and we humans have had to keep pace with these dramatic developments.

Before the Covid-19 pandemic, in Romania, the internet connection rate of computers available in educational establishments at all levels in the 2018-2019 school year was 89.9%. According to an August 2020 World Vision Romania 25 (World Vision Study, 2020) study, low internet speed has created major connectivity problems, especially for rural schools. As a result, more than 40% of students in Romania did not participate in online learning activities. This is a significant and alarming proportion for Romania as it affects the school drop-out rate which in 2020 reached 15.6%. In rural areas alone, the drop-out rate among pupils was over 26%. These issues are targets of the Sustainable Development Goal (SDG) 4 - Quality Education. Urban-rural differences are foreseen in several SDGs aiming to reduce inequalities of opportunity.

From 25 March 2022, the Ministry of Education has decided to physically return students to educational institutions in Romania. Although educational activity is resumed in the physical form, it will not be the same. According to the Romanian Education Digitisation Strategy "95% of the respondents to the research believe that this COVID-19 crisis marks a point at which there can be no return to the previous situation in terms of how technology is used in education and training, and more than 60% of respondents believe that they have improved their digital skills during the crisis" (Ministerul Educației și Cercetării, 2020).

The Romanian Students' Union is one of the largest student federations in Romania whose statutory aim is to represent, promote and defend students' rights in relation to relevant actors at national level. In the spring of 2021 the federation conducted a survey to measure satisfaction with student life, in which more than 1500 student respondents from Romania participated. One section of the questionnaire referred to the equipment of lecture/seminar rooms, computer labs, language labs and medical labs. Respondents presented their views giving marks for each. Thus, the majority of the respondents did not give a satisfaction grade with those questioned. Most respondents were of the opinion that the lecture/seminar rooms, computer labs and language labs are not very well equipped and the medical labs are the most poorly equipped. Thus, we propose that not only ICT rooms and computer labs should be equipped, but all rooms in educational institutions should be equipped with a PC connected to the internet, video projector, audio and video system, other interactive education systems.

Leal Filho, writes that higher education institutions, in the long term, can play an important role in the sustainable development of the world (Guvernul României , n.d.) 9 years later (2020), the Sustainable Development Solutions Network (SDSN, 2020) brings up the role of universities in meeting the SDGs, arguing that "no goal will be fully achieved without university contributions in education, research, innovation and leadership" (Uniunea Studenților din România, n.d.).

Universities can become the main support for the implementation of the SDGs set by the National Strategy for Sustainable Development 2030 and can function as institutional models or living laboratories for students (Filho, 2011). Findler state that "universities can directly and indirectly influence sustainability in areas such as the economy, the natural environment, societal challenges, culture, policy making and demographics" (Findler et al., 2019). The number of universities reporting that they have an interest in sustainability and are taking action on it is increasing, but major changes are not the result of universities (Sterling , 2021).

The most important barriers encountered in trying to bring sustainability to universities, identified by Blanco-Portela, are those related to stakeholder beliefs, the internal structure of the institution, the institutional framework, external factors influencing the institution and resources (Blanco-Portela et al., 2017).

The benefits resulting from the integration of sustainability in universities are the pillars of a future that will be based on an aware, educated, engaged society, free from discrimination and inequality. The private sector will have conscious, moral entrepreneurs with values oriented towards the whole community and responding to needs in an environmentally friendly way. Last but not least, a real and tangible benefit that we can already see is the research in this area carried out by academics. The growing number of scholarly articles that report on the current situation and the target we can achieve together are really important in raising awareness of the importance of this topic.

Participants in the study by Alm agreed that sustainability should be looked at globally, and that both government and organisations are responsible for sustainability. A third of the participants believe that every individual affects sustainability and this should be the responsibility of every individual (Alm et al., 2022).

In 2012, more than 22 universities, agencies, student organisations and associations from different corners of the world met to lay the groundwork for the Peoples' Sustainability Treaty on Higher Education for Sustainable Development. This treaty was written at a time when concern for the future of the planet and its people became a major concern. The treaty also includes a vision of the 'green university' based on previous strategies and the perspective of the problems they have faced over time. Thus, in the TSP's understanding of the "green university" must consider: a sustainability-oriented university culture, the university campus to be environmentally friendly, changes to the curriculum area (subjects that help educate and raise students' awareness of the role of sustainability and its long-term global importance), the commitment of the academic community to be part of the process, connecting this complex system and achieving what is proposed (Dlouhá and Dlouhý, 2014).

Thus, starting from the 5 defining directions and corroborating SDG4 - Quality Education with other SDGs assumed by Romania's Agenda 2030, we conducted a research among young people in Romania on the current and future curriculum area oriented towards sustainable development.

In order to identify the perception of young people on this issue, between 11 and 13 April 2022, we conducted a quantitative research by applying a questionnaire consisting of 8 questions. The sample consisted of 82 respondents, the majority (92.7) aged between 18 - 25 years, female, with education as their main activity (students).

Interpreting the results, it is gratifying to note that a large majority of the respondents participating in the research (90.1%) state that they are familiar with the concept of "sustainability". This once again reiterates the importance and attention we need to pay to sustainability and the need for civic engagement in the shift towards a sustainable planet.

In the last 10 years, the field of sustainable development in Romania has enjoyed an increase in our acceptance, but the degree of implementation of some solutions is lower than we would have liked. This can also be confirmed by the fact that some higher education institutions do not have at least one subject that includes aspects of sustainability at the level of each programme. 52.4% of the respondents stated that they have not studied any subject so far, and most of the respondents do not know if they had such a subject in their programme. Fewer respondents (7.3%) stated that they had studied such a subject and were asked for examples. Thus, we received the following examples: Ecomarketing, Sustainability projects in public administration, Strengthening democracy through the development of a resilient and sustainable rule of law, Sustainable economic development.

The last aspect researched among young people was the future curriculum area. Thus, we proposed to young people a list of 7 subjects to rate according to their relevance for a sustainable future. The subjects we thought of are the result of the corroboration of SDG4 - Quality Education with the other SDGs of the National Strategy for Sustainable Development 2030 (European Commission , n.d.), namely:

- Learning with Artificial Intelligence

- Learning through digitisation and virtual reality

- Learning practices to protect and conserve the environment and ecosystems

- Learning about health management and responsible consumption and production

- Equal opportunities and anti-discrimination

- Principles of sustainable cities and communities

- Legal education

In the opinion of the young participants in the research, the most relevant issue is equal opportunities and anti-discrimination (Fig. 2). Unfortunately, in the 21st century we still have a problem in this respect, and a claim in this respect is really necessary. Romania completed the transposition of EU directives on discrimination in 2006, which is 16 years ago, enough time to remedy certain issues. According to the study "Discrimination in the EU in 2015", the majority of the population believes that discrimination is present in our daily lives, and the trend is increasing over time. This increase, which does not please us, may be due to differences in perception, lack of tolerance, the existence of stereotypes. We certainly have to learn this lesson in order to have a tolerant society where everyone has a place under the sun.

In second place in the ranking are learning health management and responsible consumption and production, principles of sustainable cities and communities and legal education. All these have in common the social responsibility and civic sense that we need more and more, and in this period, in the context of the war in Ukraine, Romania has mobilised and shown great solidarity with our neighbours. These aspects cannot be neglected, and an early introduction to pupils and students will certainly contribute to a better society.

At the bottom of the ranking is learning with artificial intelligence. We can still see a reluctance towards new and change. This more abstract and difficult to understand field would deserve a promotion to really understand the benefits as the era of digitalisation is unforgiving and we will have to adapt.
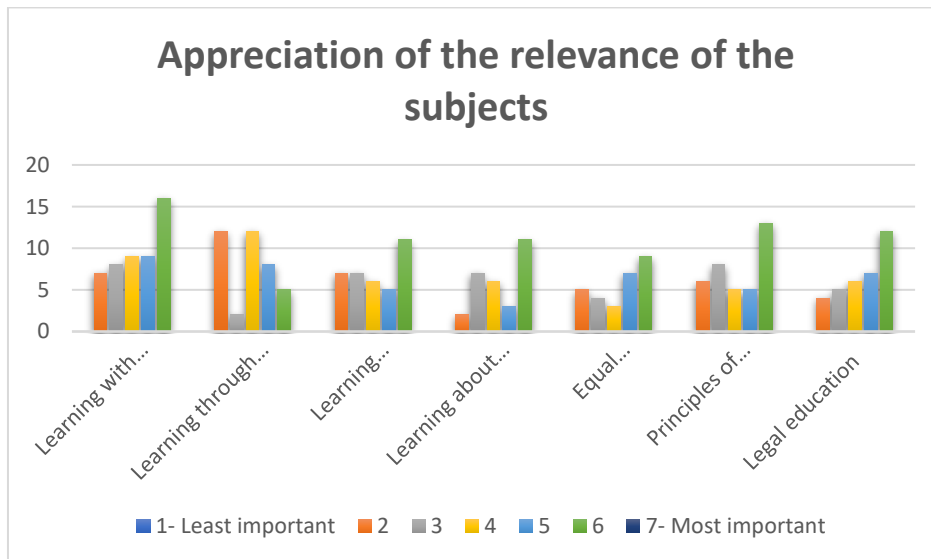

Figure no. 2. Appreciation of the relevance of the subjects
Source: Made by the authors

Conclusions

In conclusion, we can state that, although education in Romania is undergoing continuous transformation and the Covid-19 pandemic has made its mark, sustainability does not seem to be a priority for all higher education institutions. The Educated Romania project proposes adjustments in education for the 3 targets, but in higher education we do not find a sustainability-oriented vision.

Higher education institutions are one of the most important links in the formation of a sustainable community and the achievement of sustainable development goals. Through their academic autonomy, universities are vital and become responsible for the future of all. Although there are barriers, related to resources and perception, in the process of introducing sustainability in universities, we are confident that these can be tackled through examples of good practice from other universities around the world.

Universities can make a small start in embracing this area, which we will later enjoy, by introducing subjects that introduce aspects of sustainability into every curriculum. From our research among students, we have

identified the most important subjects as: equal opportunities and anti-discrimination, health management and responsible consumption and production, principles of sustainable cities and communities, and legal education.

References

Alm, K., Beery, T.H., Eiblmeier, D. and Fahmy, T., 2022. Students' learning sustainability – implicit, explicit or non-existent: a case study approach on students' key competencies addressing the SDGs in HEI program. *International Journal of Sustainability in Higher Education*, 23(8), pp.60–84. https://doi.org/10.1108/IJSHE-12-2020-0484.

Ana Maria Suduc, M. Bîzoi and G. Gorghiu, 2014, Sustainable Development in Romania in Pre-school and Primary Education, Procedia - Social and Behavioral Sciences, 116, pp. 1188-1190, https://doi.org/10.1016/j.sbspro.2014.01.367

Biggs, J., 1999. *Teaching for quality learning at University*. Buckingham, UK: Open University Press.

Blanco-Portela, N., Benayas, J., Pertierra, L.R. and Lozano, R., 2017. Towards the integration of sustainability in Higher Education Institutions: A review of drivers of and barriers to organisational change and their comparison against those found of companies. *Journal of Cleaner Production*, 166, pp.563–578. https://doi.org/10.1016/j.jclepro.2017.07.252.

Dlouhá, J. and Dlouhý, J., 2014. Higher education for sustainability – a change of education genre? *Envigogika*, [online] 9(1). https://doi.org/10.14712/18023061.440.

United Nations, 2015. *TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT*. [pdf] Available at: <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> [Accessed 8 February 2022].

European Commission, Eurydice 2022. *Reforme naționale în domeniul educației școlare*, [online] Available at: <https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-school-education-56_ro> [Accessed 12.04.2022].

European Commission, n.d. *Sustainable Development Goals*, [online] Available at: <https://ec.europa.eu/international-partnerships/sustainable-development-goals_en> [Accessed 12 April 2022]

Felgueiras, M.C., Rocha, J.S. and Caetano, N., 2017. Engineering education towards sustainability. *Energy Procedia*, 136, pp.414–417. https://doi.org/10.1016/j.egypro.2017.10.266.

Filho, W.L., 2011. About the Role of Universities and Their Contribution to Sustainable Development. *Higher Education Policy*, 24(4), pp.427–438. https://doi.org/10.1057/hep.2011.16.

Findler, F., Schönherr, N., Lozano, R., Reider, D. and Martinuzzi, A., 2019. The impacts of higher education institutions on sustainable development: A review and conceptualization. *International Journal of Sustainability in Higher Education*, 20(1), pp.23–38. https://doi.org/10.1108/IJSHE-07-2017-0114.

Guvernul României, 2021. Proiect de Hotărâre de Guvern privind aprobarea Programului de Implementare a Proiectului „România Educată", [pdf] Available at: <https://www.edu.ro/sites/default/files/proiect%20HG%20program%20Romania%20Educata.pdf> [Accessed 8 February 2022].

Guvernul României, 2018. *Strategia națională pentru dezvoltarea durabilă a României 2030*. [pdf] Available at: <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf> [Accessed 5 February 2022].

Janssens, L., Kuppens, T., Mulà, I., Staniskiene, E. and Zimmermann, A.B., 2022. Do European quality assurance frameworks support integration of transformative learning for sustainable development in higher education? *International Journal of Sustainability in Higher Education*, 23(8), pp.148–173. https://doi.org/10.1108/IJSHE-07-2021-0273.

Maiorescu, I., Sabou, G.C., Bucur, M. and Zota, R.D., 2020. Sustainability Barriers and Motivations in Higher Education—A Students' Perspective. *Amfiteatru Economic*, 22, pp.362–375.

Mariana Iatagan, 2015, Challenges of the Romanian Higher Education System in the Context of Globalization, Procedia - Social and Behavioral Sciences, 180, pp. 345-347, https://doi.org/10.1016/j.sbspro.2015.02.127

Ministerul Educației și Cercetării, 2020. *Strategia privind Digitalizarea Educației în România*. [pdf] Available at: <https://www.edu.ro/sites/default/files/SMART.Edu%20-%20document%20consultare.pdf> [Accessed 18 January 2022].

Ministerul Investițiilor și Proiectelor Europene, 2021. *Planul Național de Redresare și Reziliență, Componenta C15. Educație*, pp 1-8 [online] Available at: < https://mfe.gov.ro/pnrr/> [Accessed 5 March 2022].

Roman, M. and Plopeanu, A.-P., 2021. The effectiveness of the emergency eLearning during COVID-19 pandemic. The case of higher education in economics in Romania. *International Review of Economics Education*, 37, p.100218. https://doi.org/10.1016/j.iree.2021.100218.

Sterling, S., 2021. Educating for the future we want. [pdf] Available at: <https://greattransition.org/images/Pedagogy-Transition-Sterling.pdf> [Accessed 4 March 2022].

Tiberiu Iancu, Hurmuzzache C, Brad I, Sîrbu C, Iosim I and Pîrculescu L, 2015, Study on the Development of Education in Romania, Procedia - Social and Behavioral Sciences, 182, pp. 561-563, https://doi.org/10.1016/j.sbspro.2015.04.780

Uniunea Studenților din România, 2022. *Survey for life Quality of students in Romania*, [online] Available at: <https://uniunea-studentilor.ro/> [Accessed 12 April 2022].

World Vision Study, 2020. *Impactul pandemiei asupra copiilor din mediul rural*, [online] Available at: <https://worldvision.ro/2020/08/04/studiu-world-vision-romania-viata-copiilor-din-rural-in-pandemie-40-dintre-parinti-nu-au-reusit-sa-asigure-alimentele-si-produsele-de-baza-doar-60-dintre-elevi-au-facut-scoala-online> [Accessed 12.04.2022].