

<https://doi.org/10.52326/csd2022.09>

## EDUCATION FOR SUSTAINABLE DEVELOPMENT AT THE LEVEL OF TECHNOLOGICAL COLLEGES DURING THE PANDEMIC PERIOD

Alexandra DORNEANU<sup>1</sup>, *PhD. student*  
Cristian-Valentin HAPENCIUC<sup>2</sup>, *PhD., Prof.*  
ORCID: 0000-0002-2619-1146  
Daniela NEAMȚU<sup>3</sup>, *PhD., Asist.lect.*  
ORCID: 0000-0002-8488-0900

<sup>1</sup>*Ștefan cel Mare University, 13 Universității Street, Suceava, Romania*

<sup>2</sup>*Ștefan cel Mare University, 13 Universității Street, Suceava, Romania*

<sup>3</sup>*Ștefan cel Mare University, 13 Universității Street, Suceava, Romania*

**Abstract.** Education in the field of community life and the mechanism under the auspices of society can register significant progress. A high-quality and high-performance education system, adapted to contemporary standards of social inclusion and sustainable development, the guarantee of a sustainable, harmonious and favorable future for each individual. Currently, human society is challenged to respond to all problems, both on a global and national, regional or even local level. These problems endanger the future of humanity, the importance of the present education, being considered to be the basis of solving the problems of the contemporary world.

Education for sustainable development develops and improves the capacity of individuals, groups, communities, organizations and countries to think and act in favor of sustainable development.

Access to quality education is essential for the proper functioning of a sustainable society. In general, education is wrongly considered to be only a process that precedes entering the labor market. From the 2030 Agenda, education is a fundamental theme. The Sustainable Development Goal deals with the theme of education and is called "Guarantee a quality education and promote life-long learning opportunities for all", One of the targets of this SDG is to present. in 2030, substantially increasing the number of young people and adults who have relevant skills, including technical and vocational skills, to facilitate employment, decent job creation and entrepreneurship.

During the pandemic, conducting practical training courses was a challenge for technological high schools. From the spring of 2021, while the classes were each held online or hybrid, it was decided that the training internships would take place physically. We propose to carry out an analysis of the challenges of the teachers who had practical training internships and the economic agents involved in the level of pre-university education in Suceava.

**Keywords:** *Economic reset, practice partner, quality education, sustainable development, TVET college*

**JEL classification:** *I21; O11; P46; Q01.*

The concept of "sustainability" was introduced by the Brundtland report in 1987, dimensions at the beginning: environmental, social and economic. Meanwhile, sustainability has become a global necessity, today speaking of the 17 Sustainable Development Goals (SDGs), issued in 2015.

Studying educational programs worldwide, it can be notice that there are initiatives to redesign the curriculum through which sustainability has become a transversal skill, a skill that must be integrated into the curriculum at all levels (Membrillo-Hernández et al., 2021).

In the early 2000s, most vocational and technical education systems in Europe underwent major changes, moving towards a competency-based curriculum (Profiroiu et al., 2020). Professional training standards have been adapted and modified, so that at the base, along with technical skills, are communication skills, teamwork skills, digital skills and technical skills (Androniceanu & Burlacu, 2017).

At the recommendation of the Council on Vocational Education and Training (VET) for sustainable competitiveness, social equity and resilience, the focus is on training young people's skills to achieve ecological and digital transitions, thus ensuring inclusion. We also have in mind the "Communication on the European Education Area until 2025", a document aimed at strengthening the education and training systems following the crisis caused by the coronavirus, at the same time as the recovery efforts of the European Union, based on the transition to a green and digital Europe. All Member States have an interest in using the full potential of education and culture to create jobs and promote economic growth and social cohesion.

In connection with the "2030 Agenda for Sustainable Development" (approved at the UN summit in New York in 2015), the 2030 Education Agenda also appeared, with a new framework - "Education for sustainable development towards the achievement of sustainable development goals (ESD for 2030)", a document based on the experiences of the global action program in the five priority areas of policy action: Education, Training, Educators, Youth and Communities.

Vocational education is organized for qualifications established according to the needs of the labor market, identified through strategic planning documents for the regional, county and local training offer, based on a practical training contract concluded between the educational unit, the economic operator and the student. In professional education, subjects for compulsory education and specialized training modules for obtaining a professional qualification are completed. The studies are completed with a professional qualification certification exam.

The VET school units in Suceava county are distributed in 5 occupational zones, namely: Occupational Zone 1 – Suceava (14 units), Occupational Zone 2 – Fălticeni (5 units), Occupational Zone 3 – Vatra Dornei (4 units), Occupational Zone 4 – Câmpulung Moldovenesc (5 units), Occupational Zone 5 – Gura Humorului (2 units) and Occupational Zone 6 – Rădăuți (8 units).

In total, there are 29 units, 30 VET state education units and 9 private education units. Of these, the following have in their educational offer the Economic / Commerce field, respectively Tourism and Food:

Occupational zone 1 - Suceava: 14 schools, of which in profile: "Dimitrie Cantemir" Economic College Suceava, "Petru Mușat" Technical College Suceava, Suceava Food Industry Technical College, "Alexandru Ioan Cuza" Technical College Suceava, "Virgil" Technological High School Madgearu" Suceava, Technological High School "Nicanor Moroșan" Pârtești de Jos

Occupational zone 2 – Fălticeni: 5 schools, of which in profile: "Vasile Lovinescu" College Fălticeni, "Mihai Băcescu" Technical College Fălticeni

Occupational zone 3 – Vatra Dornei: 4 schools, of which in profile: "Vasile Deac" Technological High School Vatra Dornei, Dorna Candrenilor Technological High School and "Nicolai Nanu" Broșteni Technological High School

Occupational zone 4 – Câmpulung Moldovenesc: 5 schools, of which in profile: "Bucovina" Forestry College Câmpulung Moldovenesc, Technological High School no. 1 Campulung Moldovenesc and Technological High School "Vasile Cocea" Moldovita

Occupational zone 5 – Gura Humorului: 2 schools, of which in profile: "Alexandru cel Bun" College Gura Humorului

Occupational zone 6 – Rădăuți: 8 schools, of which: "Andronic Motrescu" Rădăuți College, Rădăuți Technical College and "Tomșa Vodă" Solca Technological High School.

Of these 30 state vocational and technical education units, 11 were assisted by Phare programs between 2001 and 2007; schools that have not benefited from VET modernization programs benefit from assistance by creating networks with the aim of exchanging good practices, consolidating and disseminating purchases from the program.; this network must be strengthened, by initiating new networks for the involvement of all VET schools.

A mandatory condition for quality professional and technical education, oriented to the needs of the beneficiaries, is an active and efficient partnership with businesses. This partnership refers to: student practice, career guidance, evaluation and validation of the skills acquired by students, offer planning, curriculum development in local development (CDL), teachers' contact with technological

and organizational changes in enterprises or adult training. Curriculum in local development (CDL) is developed by consulting the economic operators involved.

The number of economic partners of VET schools is variable, depending on the location, the variety of fields of training or the number of students. A partner is primarily an economic operator, but it can also be public institutions or NGOs.

At the beginning of the 2020-2021 school year, through "Methodological milestones for the consolidation of the acquisitions of the 2019-2020 school year - professional and technical education", it was proposed to organize some remedial activities to compensate for the practice not carried out at the end of the 2019-2020 school year.

According to Order no. 5,196 of September 3, 2021 for the approval of measures to organize activities within educational units / institutions under epidemiologically safe conditions for the prevention of illness with the SARS-CoV-2 virus, practical training courses for students in technological high school, post-high school, professional and dual professional took place with the physical presence of the students, in compliance with the procedures regarding the protection measures established by the organizing entities of practical training internships and the provisions of this order, regardless of the epidemiological scenario.

**Table 3. "Social partnership map" of the Economic College "Dimitrie Cantemir" Suceava - period 2015-2022**

No crt	Professional qualification	Name – partner organization	Students involved in the targeted period					
			2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
1.	Technician in economic activities	Chamber of Commerce and Industry	-	40	159	146	210	210
		County Employment Agency	120	65	-	-	-	-
		County Agency for Payments and Social Inspection	-	114	-	-	-	-
		Suceava County Pension House	40	-	-	-	-	-
		SC Alkont Solutions Prest SRL	-	-	-	-	112	10
		ING Bank N.V. Amsterdam, Bucharest source	-	-	74	121	-	15
		Auto Dalin Serv SRL	-	-	-	-	-	15
		Cont Ely SRL	-	-	-	-	-	10
		SC Selgros SRL	-	-	-	-	-	120
		Metro Cash & Carry România SRL	-	-	-	-	-	60
		SC Decathlon SRL	-	-	-	-	-	90
		SC Kaufland SCS	63	-	-	-	-	-
		SC Pepco Retail SRL	-	-	149	147	-	-
		SC Nicșan Călinești SRL	-	-	-	28	-	-
		Bank of UniCredit Bank SA	-	-	73	-	-	-
SC Betty-Ice SRL	-	322	-	-	-	-		
SC Carrefour România SA	272	-	-	-	-	-		
2.	Administration technician	Suceava County Pension House	-	-	52	57	57	60
		County Employment Agency	-	-	30	30	30	30
		County Agency for Payments and Social Inspection	-	-	30	22	22	30
		Suceava City Hall	103	109	-	-	-	-
3.	Technician in trade activities	SC Profi SRL	-	-	-	-	-	112
		Metro Cash & Carry România SRL	-	30	-	-	-	120
		Chamber of Commerce and Industry	-	-	-	-	200	-
		SC Carrefour România SA	64	-	52	113	-	-
		SC Pepco Retail SRL	-	71	80	48	-	-
		SC Kaufland SCS	30	-	-	-	-	-
4.	Procurement and Contracting Technician	This professional qualification did not exist					Assimilated "Technician in economic activities"	

No crt	Professional qualification	Name – partner organization	Students involved in the targeted period					
			2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
5.	Technician in tourism	The National Museum of Bucovina	-	-	178	80	80	80
		SC Juventus Nord-Est SRL	-	50	-	57	57	60
		SC Easy Booking & Tour SRL	-	-	-	71	71	68
		SC Bucovina Vacance Tour SRL Vatra Dornei	-	50	-	-	-	-
		SC Mer-Dum SRL – Hotel Zamca	70	165	50	-	-	-
		SC Lucilex SRL – Hotel-Restaurant Casa de Piatra	-	-	50	-	-	-
		SC Bilco Trading SEL	50	-	-	-	-	-
		SC Diamico SRL	50	-	-	-	-	-
6.	Hotel technician	SC Continental Hotels SRL	This professional qualification did not exist				Assimilated	26
		SC Mer-Dum SRL (Complex Zamca)					”Technician in tourism	26
7.	Gastronomy technician	SC Insieme SRL (Restaurant Anytime)	-	-	-	-	-	15
		SC Nicolmit SRL – Ramiro	-	30	30	29	29	29
		Pastificio Pasta Shop SRL	-	-	-	-	-	15
		SC Passa Tempo SRL	56	31	29	-	-	15
		Strong MND Corporation	-	-	-	-	-	15
		SC Lucilex SRL – Hotel-Restaurant Casa de Piatra	30	-	30	-	-	15
		SC Restpartner SRL	-	-	-	29	29	15
		SC Glazablu SRL – Restaurant Vivendi	-	22	-	23	23	15
		Luibera Company	-	-	-	-	-	15
		Hotel Imperium	30	-	-	-	-	-
		Premier Restaurants România SRL – Mc Donald’s	-	30	-	-	-	-
		SC Continental Hotels SA	-	-	-	26	26	-
SC Mer-Dum SRL – Hotel Zamca	-	-	30	-	-	-		
8.	Waiter (waiter), seller in food establishments	SC Glazablu SRL – Restaurant Vivendi	-	-	15	15	15	10
		SC Restpartner SRL	-	-	-	-	15	5
		Polaris Cafe – Hotel Balada	-	-	-	15	-	5
		SC Continental Hotels SRL	-	-	-	15	15	5
9.	Hairdresser - stylist	SC Inviterapia SRL	-	-	57	29	The professional qualification no longer exists	
		SC Mari Still SNC	-	-	29	-		
		SC Michelle Center SRL	-	65	-	-		
		SC Lucy-Style SRL	-	50	-	-		
		PFA RAB Lucica	30	-	-	-		

Source: Authors’ own research results / contribution

Analyzing the tables above, we can draw some conclusions:

For the Economic / Trade Sector:

- The Chamber of Commerce and Industry is a stable partner for the professional qualification Technician in economic activities from the 2016-2017 school year; in the 2020-2021 school year, this institution also took over the professional qualification Technician in commercial activities, having the ability to organize visiting lessons under safe conditions imposed by the pandemic;

- The County Agency for Employment and the County Agency for Payments and Social Inspection have kept a constant number of trainee students from the 2018-2019 school year until now;

- stable partners of the Economic College "Dimitrie Cantemir" Suceava interrupted the collaboration from the 2019-2020 school year, due to the imposed conditions, but from the last school year, the collaboration resumed or we are now in discussions: SC Pepco SRL, Metro Cash & Carry România SRL, SC Carrefour SA;

- some traditional partners no longer continued the collaboration: SC Kaufland SCS, SC Betty-Ice SRL

- new partners appeared starting in 2021: SC Profi SRL, SC Decathlon SRL, SC Selgros SRL

- The City Hall of Suceava has ceased collaboration for the Technician in Administration qualification since 2018;

For the Tourism and Food Sector:

- the professional qualification Tourism Technician benefits from stable collaborations both during the pandemic, as well as before and after, through the visiting lessons organized at the National Museum of Bucovina for the 9th and 10th grades, and SC Juventus Nord-Est SRL and SC Easy Booking & Tour SRL for the 11th and 12th grades;

- until the moment of the pandemic, the students from the lower cycle Technician in tourism were also doing practical training internships at the partners - hotels: SC Mer-Dum SRL - Hotel Zamca and SC Lucilex SRL - Hotel Restaurant Casa de Piatră;

- Hotel technician, qualification implemented with the pandemic, benefits from practical training internships at Zamca Hotel and at SC Continentals Hotels SRL;

- The qualifications Technician in gastronomy and Waiter (waiter), seller in food establishments are the qualifications that have the most practice partners, and the capacity to receive them is a maximum of one class of students;

- SC Glazablu SRL (Restaurant Vivendi), SC. Restpartner SRL (Restaurant Padrino) and SC Nicolmit SRL (Ramiro) are three economic operators who started the collaboration before the outbreak of the pandemic and continue this collaboration today for the professional qualifications of Gastronomy Technician and Waiter (waiter), salesperson in food establishments ;

- among the economic operators that no longer collaborate, we list: Premier Restaurants Romania SRL (Mc Donald's), SC Mer-Dum SRL (Zamca Complex), SC Luci-Lux SRL (Casa de Piatră) or Hotel Imperium;

- there are new economic operators who started working with us after the pandemic period for the professional qualification Technician in gastronomy: Polaris Cafe – Hotel Balada, Pastificio Pasta Shop SRL, SC Insieme SRL (Restaurant Anytime) or Luibera Company (Ceunul Bunicii);

- the collaboration with Strong MND Corporation was reconfigured, before the contract was issued for Hotel Imperium.

We can state the following objectives of the school-economic agents relationship:

- the correlation of theory with practice, students being put in front of real situations, creating the possibility to better acquire specialized knowledge;

- creating the possibility of visiting lessons, meetings between students and specialists from various fields or presentations of new, modern products and technologies;

- mediation of information on the labor market;

- arranging jobs for students, after finishing their studies;

- the development of a partnership regarding professional training of adults;

- material support of school and extracurricular activities by economic agents.

Among the weak points identified, we mention:

- the low level of communication efficiency;

- some agencies see and do not appreciate the bilateral benefits of the practice partnership;

- the importance of the quality of students' practical training, monitored by practice tutors, is not taken into account;

- labor protection is not given importance at the workplace, sometimes it is completely absent.

Despite the above, we conclude that the students who benefited from practical training at economic agents proved to be more competent from a professional and moral point of view.

**References:**

1. Androniceanu, A., & Burlacu, S. (2017). Integration of educational technologies in universities and students' perception thereof. In *The International Scientific Conference eLearning and Software for Education* (Vol. 2, p. 26). Carol I National Defence University.
2. Androniceanu, A., & Burlacu, S. (2017). *Intelligent system for assessment and grading based on docimologic tests. eLearning & Software for Education, 2.*
3. Dumitrache, V.M., Dobre F., Istrate, B. and Bolohan, A.M., 2022. Education for Sustainable Development in the Vocational Education and Training System Facilitated by the European Sustainability Competence Framework. Case Study on Sustainability Competences Integration in Technician in Agriculture Professional Training Standard. In: *8th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. Graz, Austria, 25-27 May 2022. Bucharest: ASE, pp.133-138. Doi:10.24818/BASIQ/2022/08/016
4. Membrillo-Hernández, J., Lara-Prieto, V. and Caratozzolo, P., 2021. *Sustainability: A Public Policy, a Concept, or a Competence? Efforts on the Implementation of Sustainability as a Transversal Competence throughout Higher Education Programs. Sustainability*, [online] 13(24), p.13989. <https://doi.org/10.3390/su132413989>.
5. Profiroiu, C. M., Bodislav, D. A., Burlacu, S., & Rădulescu, C. V. (2020). *Challenges of Sustainable Urban Development in the Context of Population Growth. European Journal of Sustainable Development*, 9(3), 51-51.
6. Sochircă, Elena; Pîntea, Sorin Adi. Contribuția noilor educații la dezvoltarea educației globale. In *Revista Didactica Pro...*, revistă de teorie și practică educațională, 2022, 132.1-2: 7-11. Disponibil: <https://doi.org/10.5281/zenodo.6685312>
7. *Planul Local de Acțiuni pentru Învățământul profesional și tehnic*, disponibil: <https://www.isj.sv.edu.ro/index.php/plai>
8. *Planul Local de Acțiuni al Școlii*. Colegiul Economic "Dimitrie Cantemir" Suceava. Disponibil: <http://cedcsv.ro/cedc/index.php/informatii/75-planuldeactiunealscolii>
9. *Repere metodologice pentru consolidarea achizițiilor anului școlar 2019-2020 – învățământ profesional și tehnic*. Disponibil: [https://www.edu.ro/repere\\_metodologice\\_aplicare\\_curriculum\\_clasa\\_IX\\_an\\_scolar\\_2021\\_2022](https://www.edu.ro/repere_metodologice_aplicare_curriculum_clasa_IX_an_scolar_2021_2022)