

DUAL LEARNING - A NEW FORM OF ATTRACTION FOR PROFESSIONAL EDUCATION

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***Abstract:** Dual vocational education is an innovative form of organizing the professional education that is organized only at the request of economic agents, educational authorities are responsible for ensuring human and financial resources and organizes technical theoretical training in the school (1-2 days per week) and the employer must provide human and financial resources and organize practical training, from work (3-4 days). This paper analyzes the attractiveness of students for dual learning. Quantitative research was carried out on a sample of 100 pupils at the professional level, using the interview technique and the questionnaire as a research tool, with the purpose of validating working hypotheses. The results highlight the importance of adapting vocational and technical education schools to the needs of its direct beneficiaries and social partners, thus enhancing qualification and insertion into the labor market.*

***Key-words:** dual professional learning, education, innovation, attractiveness.*

***JEL Classification:** I21, I25.*

1. Introduction

In the context of the intensification of the labor force crisis in Romania, implementation of dual education represents a chance offered by the education system for a collaboration between school, companies and pupils. Dual education is a type of vocational and technical education that combines on-the-job learning in a company with education and training in an educational establishment. Thus, young people have a professional qualification, while continuing their studies, and have a much better chance of getting a job at the end of their studies. Aging population, globalization, changes of environment, technological evolution and digitization are the new trends that cause changes in jobs, changes that relate to the skills needed to enter the labor market and evolve in the career.

2. Theoretical approach

Strategic educational management is a form of modern leadership, which focus on anticipating changes and amendments needed in the school organization and in interactions with the environment in which it operates, in order to avoid situations where the services provided by the organization to become outdated or inconsistent with the proposed changes (Ghergut, 2007).

Even though new laws have been adopted, which are centered on the principle of decentralization, the role of managerial structures and the transfer of authority to local factors, changes are not the result of a coherent vision and a profound knowledge of Romanian school realities and requirements of the labor market (Eurydice, 2010).

Human resource management plays an important role in the future of any organization (Jaradat, 2007) especially in school institutions for school policy-making in line with labor force requirements and local and regional development.

The anchoring of schools in Romania to the requirements of the European educational system requires a permanent exchange of information with institutions of the

same profile in the European space where the managerial know-how necessary for the competitiveness is ensured (Nicolescu, 2007).

Educational strategies should be designed to take into account the emergence of new actors, new concentrations of scientific, educational, economic forces on the international scene (Goldbach et al., 2019).

Institutional performance in the new knowledge-based society can be ensured through a new, innovative, accountability and efficiency management capable of overcoming the challenges of the new millennium, challenges that have generated different new processes:

- continuous progress of knowledge, mutual exchange of information and documentation;
- the emergence of democratic mechanisms of school governance;
- increasing the strategic competitiveness between the educational institutes, which negotiate the market segment according to the launched offer (Stegăroiu, 2000).

3. Research methodology

The research objective was to know the students' opinions on the attractiveness of dual learning and the increase of their chances of relevant employment. Research hypotheses are:

H1: The skills and abilities gained in practice at the economic agent influence positively the professional trajectory.

H2: Students' motivation and attitude towards dual learning represent a new form of attraction for professional education.

The research method used is the survey and the research tool is the questionnaire; therefore, we developed a questionnaire structured according to two detailed components and scaled specifications: skills and abilities, motivation and attitude.

For this research, we have used non-randomized sampling. The research was quantitative, using a face to face interview method based on the questionnaire mentioned above. The questionnaire was applied between October and December 2018, to a sample of 100 pupils, enrolled in dual learning schools, from the Dambovită county (see appendix 1). The questionnaire administered covered the relevant questions to the two hypotheses, the research questions and purpose of the study. We used Likert's five point method of scaling, where respondents were required to submit their agreement/disagreement with a series of statements in the questionnaire. Processing of the questionnaire was done in a database created in the Excel program.

4. The results of the research

The items in the questionnaire regarding the skills and abilities acquired by the students took into account three directions: the skills and abilities gained during the practice internships, the theoretical knowledge and the degree of initiative and responsibility in solving tasks received. The responses recorded during the investigation are shown in the tables below (Table 1 & Table 3).

Table 1. The skills and abilities acquired by students

To what extent do you agree with the statements below:	Total agreement	Partial agreement	Do not know / can not tell	Partial disagreement	Total disagreement
The skills and abilities gained during the practice internships offer new opportunities on labor market	24	34	6	19	17
The skills and abilities gained in the school (theoretical knowledge) helps you to organize and develop the workplace	19	20	8	34	19
The skills and abilities gained helps you for taking the initiative and responsibility for the tasks received	25	28	17	19	11

Source: data processed by the author

Table 2. The score of items

The impact of skills and abilities gained during the practice internships on the opportunities in the labor market:	0.29
The impact on theoretical knowledge on organize and develop the workplace	-0.14
The impact of skills and abilities on taking the initiative and responsibility for the tasks received	0.37
Overall score	0.1733

Source: data processed by the author

The impact of skills and abilities on taking the initiative and responsibility for the tasks received and the impact of skills and abilities gained during the practice internships on the opportunities in the labor market have achieved high scores 0.37 and 0.29, while the impact on theoretical knowledge on organize and develop the workplace obtained a negative score of -0.14 (table 2). The negative score points out that students do not appreciate the true value of the theoretical knowledge in organize and develop the workplace but emphasize the practical knowledge. Students are also aware of the benefits of practice internships made to the trader (workshops, production halls, assembly lines, etc.). The students get a positive attitude towards taking responsibility and taking the initiative at working place.

Table 3. The pupils' motivation and attitude for dual learning form

To what extent do you agree with the statements below:	Total agreement	Partial agreement	Do not know / can not tell	Partial disagreement	Total disagreement
The dual learning education form increase your motivation for lifelong learning	27	20	8	31	14
The dual learning education form increase your motivation for work	43	38	10	9	5
The dual learning education form increase your selfesteem and selftrust	39	44	6	11	2

Source: data processed by the author

Table 4. The score of items

The impact of dual learning education form on motivation for lifelong learning	0.15
The impact of dual learning education form on increasing motivation for work	1.05
The impact of dual learning education form on increasing selfesteem and selftrust	1.07
Overall score	0.75

Source: data processed by the author

The impact of dual learning education form on motivation for lifelong learning obtained the lowest score, 0.15, while the impact of dual learning education form on increasing motivation for work and the impact of dual learning education form on increasing selfesteem and selftrust have achieved high scores 1.05, respectively 1.07 (Table 4). This demonstrates that students are still not sufficiently motivated to continue lifelong learning for various reasons but instead are sufficiently motivated to work in a field that offers them material rewards and recognition of their own abilities, also this fact makes it possible to increase self-confidence and self-esteem.

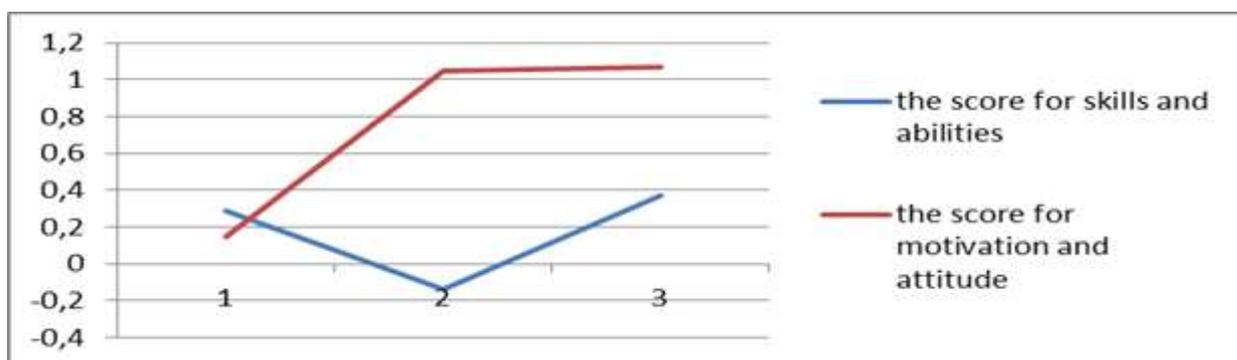


Figure 1. The analysis of the score obtained by skills and abilities and motivation and attitude

Source: data processed by the author

The analysis of the score obtained by skills and abilities and the score obtained for motivation and attitude highlights the attractiveness of dual learning education form for students. Also from the analysis of the scores we can validate both hypotheses of the research (Figure 1).

5. Discussion

The cruel reality of education statistics clearly tells us that, according to PISA in 2012 and 2015, around 40% of 15-year-old Romanian children are functionally illiterate. They account for 58% of upper secondary students enrolled in technology-intensive classes and in vocational schools in Romania (Eurostat data for 2016). It is a recognized thing that admission into the 9th grade, based on the results of the 8th grade national assessment, sends pupils with the lowest academic abilities to vocational grades. Potential and low motivation for pupils to learn, which usually end up in these classes without any connection to their aspirations and skills, is complemented by the quantum lack of linking vocational training with the realities of work - qualifications, laboratories and obsolete content, teachers in the threshold retirement or go beyond technical progress.

Romania has assumed an ambitious target of reducing the phenomenon of early school leaving to 11.3% by 2020 (from 17.4% in 2012). Rather than fall, in 2015 this percentage rose to 19.1%. In parallel, given the worrying extent of the phenomenon of exclusion from the education system (through non-schooling or school drop-out) in upper secondary education, a series of focused intervention policies and measures should be among the priorities of the Ministry of Education, which should to actively and coherently support the fight against school drop-out and functional illiteracy and support for fundamental rights awareness policies. At European level, Vocational Education and Training (VET) has become one of the EU's educational policy priorities. The Europe 2020 Strategy sets the following targets: increase the occupancy rate of the population aged between 20 and 64 to at least 75%, allocation of 3% of GDP for research and development, the proportion of early school leaving in education and training systems should be below 10%.

Companies have invested in Romania because they have skilled workers here, and when this resource disappears, investors will also disappear. There are hundreds of thousands of young people in Romania who are working on low wages in the country and abroad, as unskilled workers, because the professional education in Romania is on the ground. Some examples of success when the private environment has not awaiting the support of the authorities and invested in professional schools, with direct practice in the factory, scholarships and accommodation for students are: in Braşov, the Kronstadt School, which prepares 700 pupils; in Oradea, Eurobusiness with 21 classes, in Ploieşti Concordia School, which offers inclusive training opportunities for 40 young people annually, guaranteeing the access of socially disadvantaged young people to quality education and training, in Galaţi, the ArcelorMittal Apprenticeship School, at its third promotion, trains hundreds of hundreds of apprentices in the workplace for 18 months, giving young people all the facilities for training as well as accommodation, meals, salaries and meal vouchers. In Dambovită county was implemented in the school year 2017-2018 dual education in collaboration with SC Artic SA Gaesti, the famous household appliance manufacturer for mechanical, electronics and automation field (see appendix 1). But it is not enough and few companies allow such an investment. Even worse, the Romanian state did not offer a regulation of this form of education until 2016. It is the duty of the Government to work with the private environment and to invest in vocational schools where young people can learn the jobs requirements, jobs offered by the labor market now and in the coming years.

From the legislative point of view, the emergency ordinance OG 81/2016 was a first step in regulating dual learning and encouraging a firm contract between school, companies, and students. The ordinance encourages companies to invest in training their future employees to become good craftsmen and remain in the country. Another important effect of the ordinance is to reduce school drop-out by revalorising vocational education.

In April 2017, by another legislative act adopting OG 84/2016 amending the Tax Code, it has become possible for employers who support VET to be able to benefit from several types of tax incentives, both in the field of taxation on profit and income tax.

In particular, firms that support vocational education (including dual education) can deduct their associated costs (scholarships and educational materials for pupils, teacher training and wages), and can cushion and recover their investments in equipment and course facilities.

Also by Emergency Ordinance no. 84/2016, the provisions of Law no. 227/2015 on the Fiscal Code were supplemented with measures for the full deduction of the expenses incurred by the economic operators for pupils and for the calculation of the annual net income subject to income tax, measures similar to those envisaged for the tax on profit. In addition, measures were also approved for non-taxation of benefits received by students.

Thus, scholarships, prizes, accommodation, meals, transportation, work equipment / protection and other similar items received by students during vocational and technical education are non-taxable incomes for the person making the income. These tax incentives to deduct expenditure on the training of students in vocational and technical education also benefit authorized individuals, family businesses and individuals who do not pay corporation tax.

In addition to the 200 lei professional scholarship, young people can receive a warm meal, protection equipment, transport and free accommodation. The employer can offer an additional grant (another 200 lei for pupils enrolled in dual learning) to attract young people to the jobs required in the labor market, such as electricians, low voltage welders, plastic operators, carpenters, plumbers, etc. and halt their migration to Italy, Spain and other European countries that absorb the Romanian labor force.

6. Conclusion

The dual learning education form represent a new form of attraction for professional education system, where students acquire new knowledge, abilities and skills especially in the workplace, which facilitates their integration into the labor market much easier. This kind of education has to be supported by economic operators, the business environment that convinces that really following a professional qualification route is not a second chance route or a route for those who have obtained low grades during the gymnasium, but it is a route that allows the development of professional careers and even the continuation of studies to the level of higher education. It remains to be seen whether dual education will be a viable and complementary alternative to educational offer. The legislative framework is just a first step that will regulate the relationship of the three actors on the labor market: school, companies and pupils.

Only by extending it in a unitary way and through a national promotion strategy we can say that this alternative to dual vocational education can be viable for both young people and for economic operators and local authorities.

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Appendix no. 1: The number of pupils enrolled in dual learning in Dambovita county

Promotia/ promotion 2018-2019	Domeniul/ field	Calificarea profesionala/ professional qualification	Nr. Elevi/ no. pupils	Agent economic/ Trader
Liceul Tehnologic "Nicolae Ciorănescu" Târgoviște	Mecanică/ Mechanics	Operator la mașini cu comandă numerică/ Machine operator with numeric control	28	S.C. Arctic S.A. Găești
Liceul Tehnologic "Nicolae Ciorănescu" Târgoviște	Electronică, automatizări/ electronic, automation	Electronist aparate și echipamente/ Electronist devices and equipments	28	S.C. Arctic S.A. Găești
Liceul Tehnologic "Iordache Golescu" Găești	Electromecanică/ electromechanical	Frigotehnist/	28	S.C. Arctic S.A. Găești
Promotia/promotion 2017-2018	Domeniul/ field	Calificarea profesionala/ professional qualification	Nr. Elevi/ no. pupils	Agent economic/ Trader
Liceul Tehnologic "Nicolae Ciorănescu" Târgoviște	Mecanică/ mechanical	Operator la mașini cu comandă numerică/ Machine operator with numeric control	28	S.C. Arctic S.A. Găești
Liceul Tehnologic "Nicolae Ciorănescu" Târgoviște	Electronică, automatizări/ electronic, automation	Electronist aparate și echipamente/ Electronist devices and equipments	28	S.C. Arctic S.A. Găești

Source: data procesed by the author after

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http://www.alegetidrumul.ro/uploads/03_Anexa_8_bis_Reg_Sud_Muntenia.pdf visited in
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