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**VOCATIONAL EDUCATION REFORM IN THE AUTONOMOUS
PROVINCE OF VOJVODINA - FINANCIAL ASPECTS**

**REFORMA SREDNJEG STRUČNOG OBRAZOVANJA U AUTONOMNOJ
POKRAJINI VOJVODINI – FINANCIJSKI ASPEKTI**

ABSTRACT

Secondary vocational education in the Autonomous Province of Vojvodina has undergone significant changes in the last twelve years. First of all, the reform which started led to significant changes in the basic outline of the vocational education. Traditional educational profiles are being cancelled, and new, so called experimental educational profiles, are being introduced, primarily being aimed at training students for the labour market, or for performing specific tasks that are being placed before them in business practice. The main purpose of the reform is adapting the education system to the labour market demands, i.e. making the education system support the economy. Successful implementation and completion of this reform is conditioned by the amount of funds directed toward this purpose. This paper will consider the financial aspects of the vocational education reform, a comparative analysis of the funds spent and the effects of the vocational education reform will be carried out. We will give a detailed analysis of the major financial problems encountered in the vocational education reform, the ways of solving them and the possibility of providing additional funding. One segment of the paper will be devoted to funding per student, as a new form of financing the education system of the Autonomous Province of Vojvodina.

Keywords: reform of the secondary vocational education, financial aspects of the vocational education reform, funding per student

SAŽETAK

Srednje stručno obrazovanje na teritoriji Autonomne Pokrajine Vojvodine u posljednjih dvanaest godina doživjelo je značajne promjene. Prije svega, reforma koja je započela dovela je do značajnih promjena osnovnih obrisa srednjeg stručnog obrazovanja. Tradicionalni obrazovni profili se ukidaju, a uvode se novi, tzv. ogledni obrazovni profili koji su prije svega usmjereni ka osposobljavanju učenika za tržište rada, odnosno za obavljanje konkretnih zadataka koji se pred njih postavljaju u poslovnoj praksi. Osnovna namjera reforme je adaptacija obrazovnog sistema zahtjevima tržišta rada, tj. stavljanje obrazovnog sistema u funkciju gospodarstva. Uspješno sprovođenje i okončanje ove reforme je uslovljeno količinom finansijskih sredstava usmjerenih k ovoj namjeni. U okviru ovog rada će se upravo razmatrati finansijski aspekti reforme srednjeg

stručnog obrazovanja, napraviti se uporedna analiza utrošenih finansijskih sredstava i efekata postignutih reformom srednjeg stručnog obrazovanja. Kroz rad će se dati detaljna analiza osnovnih finansijskih problema uočenih u procesu reforme srednjeg stručnog obrazovanja, načini njihovog otklanjanja i mogućnosti osiguranja dodatnih izvora financiranja. Jedan segment rada će biti posvećen modelu financiranja po učeniku, kao novom modalitetu financiranja obrazovnog sistema Autonomne Pokrajine Vojvodine.

Ključne riječi: reforma srednjeg stručnog obrazovanja, finansijski aspekti reforme srednjeg stručnog obrazovanja, financiranje po učeniku

1. Introduction

Secondary vocational education features as a noteworthy segment of the overall educational system of the Republic of Serbia. Modern-day market trends, characterised by extremely dynamic movements and turbulence require a flexible educational system. Flexibility of an educational system implies that it should produce human resources in accordance with the labour market demands at any moment. This also implies constant reforms of educational profiles, additional training of the teaching staff, keeping track of changes on the market, and conducting the educational process adjusted to the needs of economy, that is, producing human resources required by economy in a given economic milieu.

Creating such an educational process is a time-consuming and complex process, accompanied by a multitude of challenges. Opting for market-oriented economy, Serbia, including Vojvodina, has faced numerous challenges as regards reforms to be completed, particularly in the education sector. Inappropriate network of education institutions, outdated curricula incompatible with contemporary trends, teaching staff lacking knowledge required for a modern concept of teaching, and a chronic lack of funds are only some of the problems facing the Ministry of Education when initiating this, by all means necessary reform.

The educational system of Serbia, including the Province of Vojvodina was, first of all strictly bureaucratised. As building any educational system is tainted by ideological elements, so was the educational system built in Serbia and Vojvodina adapted to the Socialist system that had existed in this region for about fifty years. Transition to market-oriented economy did not entail its automatic change; on the contrary, all efforts were channelled into preserving the existing state of affairs, without more serious reforming endeavour. Until the turn of the millennium, the educational system had been creating human resources disregarding the requirements of the contemporary labour market. Human resources that were produced were unnecessary on the labour market, whereas on the other hand, people whose professional profiles were lacking on the market were educated at a negligible rate. The educational system existed as an isolated system, completely oblivious of the current market trends, persistently resisting any attempt at reform. However, opting for market-focussed economy and entering the transition process faced the educational system with its own shortcomings and imposed the need for its reform, which will inevitably encompass all the segments of society. The objective of this research stems from the aforementioned, which is to point to the importance and role of secondary vocational education on the territory of the Republic of Serbia and the Autonomous Province of Vojvodina, its key features, and key guidelines in the reform of secondary vocational education with the ultimate goal of future economic development.

2. The reform of secondary vocational education in the Republic of Serbia – the roadmap to the future

Having opted for market-focussed economy and capitalist system, the Republic of Serbia had to undergo a whole range of structural reforms, where the reform of secondary vocational education

took one of the prominent places. The educational system that had existed until the reform was characterised by sluggishness and inflexibility in responding to changes in the environment. The result of such educational system are workers trained in skills redundant on the labour market, that is, in low demand. The then educational system educated human resources without any coordination with economy and labour market; it was, simply, an isolated system functioning as if no changes had happened in the society, and that the social circumstances were unchanged in relation to the time when its foundations were set.

The development of contemporary technology, change in the market structure and the economy's orientation to tertiary and quaternary sector imposed a need for professionals of different profiles, while the educational system kept producing human resources for industry and "old" trades and crafts, where the demand kept decreasing. The then educational system is characterised by an extremely small percentage of practical activities performed by students. The students were virtually dominantly oriented to amassing theoretical, practically useless knowledge, with quite unfavourable structure of general and specialised subjects, in terms of equal participation, or even participation of general subject dominating in some segments.

Textbooks designed for secondary school students were outdated; their contents did not follow the changes occurring in the modern society, so that, in some cases, students learned extremely obsolete contents that were completely out of date. A special problem was the head count. Classes of 30 or more students were more a usual practice than an exception. In such numerous classes, the quality of the educational process was quite compromised. The equipment at schools was at extremely low level, especially in the case of information technology. The teaching staff lacked continuous training and education, which resulted in outdated teaching methods, monotonous and uninteresting lessons. This resulted in students' unwillingness and disinterest in content, and resistance to acquiring new knowledge.

Diagnosing all the anomalies of the existing educational system meant the beginning of the reform, primarily of secondary vocational education, as the foundation of economic development in any country. The reform of secondary vocational education included a schedule for carrying out a set of stages, resulting in a reformed educational system. Any reform requires copious funds, so that 20 million euros have been invested in the reform of the secondary vocational education, owing to the financial support from the Community Assistance for Reconstruction, Development and Stabilisation (CARDS) allocated for the Program of reforming secondary vocational education.

The first three stages of the reform of secondary vocational education have been completed from 2006 until today. The results accomplished by this reform are impressive, including [www.mpn.gov.rs/sajt/page.php?page=129, April 10, 2013]:

- a. the Strategy of Development of Secondary Education has been adopted and its implementation commenced;
- b. numerous old curricula have been modified and changed, and new, experimental educational profiles have been introduced;
- c. over 2500 teachers have undergone various seminars, training courses and study trips;
- d. over 150 secondary schools received over 3500 modern computers, with additional equipment;
- e. major construction projects have been completed, numerous secondary schools have been reconstructed, innovative activities of students have been encouraged; and
- f. schools that started introducing experimental education profiles have been equipped with specialised classrooms for conducting the practical educational work (e.g. virtual enterprises, virtual banks, etc.).

Completing the above described three phases of the reform of secondary vocational education was followed by the new, fourth phase in 2009 – “Modernisation of the Secondary Education and Training System”. The essence of this, fourth phase of the reform of secondary education will be concentrated on the development of the National Council for Vocational Education, building a more solid cooperation between secondary education and numerous relevant ministries and other relevant institutions, building a national qualification framework and converting the experimental educational profiles into regular profiles. A significant segment of completing this fourth stage of the reform of secondary vocational education will also include improvement of the funding system.

The process of modernising secondary vocational education in the Republic of Serbia is based on several basic principles (The Draft Concept of Secondary Vocational Education, 2004, 10-12):

- (1) partnership – stemming from education itself as a partner activity, and cooperation with various level of community: local, regional and national administration, school management methods etc.;
- (2) decentralisation – should secure decentralised management of the entire education system, and each school individually;
- (3) availability – secondary vocational education should be available to all regardless of gender, race, religious denomination or ethnic background;
- (4) openness – secondary vocational education is an open system enabling distribution of knowledge, skills, abilities, and numerous working competencies;
- (5) programme diversity – programmes of diverse types are conducted within secondary vocational education;
- (6) organisational diversity – school is the fundamental, but not the sole form of institution for acquiring vocational education;
- (7) professionalization of teachers’ and associates’ work – continuity of training and further education of teachers and associates; and
- (8) focus on the outcome – clear definition of what students should know, and the knowledge acquisition method.

The fundamental purpose of the reform of secondary vocational education is connecting educational institutions with the sector of economy, i.e. creating human resources that will fully meet the needs of the modern labour market. This implies close cooperation of educational institutions, government bodies and organisations, employers and trade unions with a single clear goal: to create human resources who will find employment in a very short period of time. This goal has partly been attained by creating and introducing experimental educational profiles. This is best demonstrated by the latest data, according to which about 80% secondary school graduates in agriculture and engineering found employment in the first three months after finishing school. In addition, students are much more interested in the teaching process and have mastered numerous practical skills, as witnesses by numerous members of the business community who served as members of examining boards. Secondary vocational education should respond to the changing conditions on the labour market by taking several measures (The Draft Concept of Secondary Vocational Education, 2004, 13):

- (1) developing programmes and standards that should reflect changes on the labour market and create human resources that will be able to respond to these changes;
- (2) creating a broad range of professions and developing key skills;
- (3) building partnerships with local employers, social partners and other numerous stakeholders.

Within the secondary vocational education, the purpose of educational programmes lasting up to two years is mostly to fulfil the current needs of the labour market, whereas three-year and four-year programmes produce future university students. Nonetheless, secondary school graduates who

pass the vocational graduation exam are directly employable on the labour market, whereas graduates who obtain general certificates of graduation (notably graduates from grammar schools) are directly oriented to higher education institutions. If they want to continue education at universities, graduates of secondary vocational schools must also pass the general graduation.

The following stage of the reform of secondary vocational education will be primarily focussed on resolving numerous problems observed in the domain of funding the secondary vocational education. In effect, numerous additional sources must be found for resolving the problem of funding the institutions of secondary vocational education in the forthcoming period, and raise the efficiency level of functioning of the secondary vocational school network.

Opting for the reform of the secondary vocational education, the Republic of Serbia has tackled a highly complex social process. On the one hand, conducting this process required substantial funds, which were partly provided from the national sources, but a much more significant source of finance were the European Union funds. Owing to the support of European countries, the Republic of Serbia was able to initiate and complete its reform. The effects of this reform are interpreted variously, depending on the viewpoint. Introducing experimental classes into the educational system created conditions for establishing a connection between the educational system and economy. The concept of these educational profiles is oriented to a dominant share of vocational courses in relation to general education courses – some 60% in favour of the former.

In the opinion of the authors of this article, it is desirable for students to implement the theoretically acquired knowledge through lessons of tutorials and practical training, so as to become qualified for practical application of acquired knowledge after the completion of secondary schools, through performing specific jobs they were trained for. A current problem is that generating the curriculum was not accompanied by creating appropriate textbooks that should facilitate the implementation of the educational process, so that the teachers were left to their own resources in order to teach the programmed contents. The official textbooks used for working in classical classes do not fully cover the curriculum of the experimental educational profiles.

A large number of teachers hired to teach courses within experimental educational profiles did not pass the pedagogical training required for the teaching process within these educational profiles, such as teaching actively oriented lessons, testing methods, teaching methods and conducting the student training activities. Having attended mostly classical *ex cathedra* lessons at primary schools, the students were strikingly unused to this approach to work. Some of the teachers teach courses in a classical manner and administer modern tests, which is by no means recommendable. The teaching and testing methods must be harmonised, that is, the students must be examined the way they were taught. These growing pains and teething problems are likely to be overcome as the reform progresses.

3. The reform of secondary education in Serbia – the financial aspect

Observing the development tendencies in secondary school education in the Republic of Serbia over the past few decades, we can note that secondary education has shared the fate of the overall social development in this period, manifested in the continuous devastation of secondary education and destroying its human, material and development potential. All of this imposes a need for an urgent reform of the secondary education, in order to preserve the remainder of resources and potentials existing in the educational system of the Republic of Serbia. If we add to this the fact that the outcomes and effects of the existing educational systems are more than devastating, with several decades of lacking behind the developed countries in the world and advanced educational systems, some measures needed to be taken towards enhancing the quality of the overall educational system,

including secondary school, so as to secure human resources and experts able to follow the development trends in the Republic of Serbia.

The total expenditure on education in Serbia takes up an average of 4.5% GDP or 11% consolidated public expenditure. The Serbian education sector employs about 130 thousand people, accounting for about 6.5% of the total formally employed workforce. If we compare these data with the EU countries, we will notice that expenditure in the EU vary across a broad range of 4% to 8% of the GDP, whereas expenditure in transition countries is equal to the level of expenditure in Serbia and Vojvodina.

According to some calculations, expenditure per student in Serbia in 2008 amounts to about 1400 euros per annum, while according to some other calculations the same expenditure amounts as much as 2250 euros.

According to current legislation, Serbia, including Vojvodina, uses class-based financing models, characterised by (Kabok, 2011):

Table 1 Overview of characteristics and quantification of class-based financing model in elementary and secondary education

CLASS-BASED FINANCING MODEL	
model characteristics	quantifications (parameters)
formula	number of enrolled students per class
supports smaller schools	weekly teacher workload
curriculum related	number of auxiliary staff per number of classes
higher budget costs	criteria for operating costs
centralised financing system	
imbalances in the school system	
supports the specifics of Vojvodina	

The current financing model in Serbia and Vojvodina, based on the number of classes, demands significant budget expenditure and centralised financing system, often resulting in imbalances in the school network. According to this model, the maximum number of students per class is 25 in elementary, and 30 in secondary schools. Teachers teach 20 lessons a week, whereas teachers of mother tongue, foreign language and mathematics teach eighteen.

Considering the difficult economic situation, fall in the number of students on the territory of Serbia and the shortcomings of the existing model, Serbia has decided to apply student-based financing model as of 2014/15. The basic features of the model are (Kabok, 2011):

Table 2 Overview of characteristics and quantification of new financing model in elementary and secondary education

STUDENT-BASED FINANCING MODEL	
model characteristics	quantifications (parameters)
formula	number of enrolled students per class
supports smaller schools	weekly teacher workload
curriculum related	number of auxiliary staff per number of classes
higher budget costs	criteria for operating costs
centralised financing system	
imbalances in the school system	
supports the specifics of Vojvodina	

The given model supports competition among schools in attracting students, resulting in the increase in quality of the total educational process. It demands less budget funding and decentralises the financing system. Any uneconomical behaviour in the system, i.e. schools' operation, results in closure. According to this financing model, costs are a planned category and are related to teaching process costs including employees' wages on the one hand, whereas on the other they include overalls, including heating, auxiliary staff and costs of zonal school.

In addition to enhancing the financing model of the educational system in Serbia and Vojvodina, other measures should also be taken in order to raise the cost-effectiveness of the educational system, especially secondary education, such as enhancing the teaching staff's qualifications, improving the teaching facilities and equipment, increasing the flexibility of curricula and adapting them to the demands of the economy and the labour market, and the unified system of testing at the national level, so that the students' knowledge can be equally assessed.

It is essential for these measures to be implemented with a plan and long-term orientation, as education is one of the most significant spheres in any society, demanding constant attention and continued improvement. Investing in development creates prerequisites for high-quality and solid social and economic development, and overall progress of the entire country.

4. Conclusion

In addition to advantages in terms of developing similarity with contemporary educational trends, the current process of reform of the secondary vocational education has shown numerous shortcomings elaborated earlier. Solutions to these shortcomings should therefore be sought in the forthcoming period. If the success of these reforms is to be maximised, its effects must be monitored, and all the observed shortcomings should be removed continuously. When implementing these reforms, experiences of other countries with high-quality educational system should be studied, and the positive elements observed there should be incorporated in our educational system.

Further implementation of reforms in the forthcoming period should pay more attention to the opinion to practitioners, that is, teachers and associates teaching in educational institutions. Major attention should be devoted to improving the financial situation of educators, as only financially secure teachers will be able to endure the full burden of reforms. Equipping school facilities with contemporary educational tools is another vital prerequisite for a successful implementation of the reform.

Studying the Draft Education Development Strategy in the Republic of Serbia until 2020, positive tendencies are observable in the domain concerning secondary education. This especially relates to establishing correlation between the business community and education, so as to provide for schooling human resources required by economy. What this Strategy adopts is recognition of both formal and informal knowledge, which is positive, as it encourages attending various training courses, thus enhancing students' competencies, and encouraging the lifelong learning process. Finally, the Draft Education Development Strategy in the Republic of Serbia until 2020 includes another element that must be thoroughly pursued – harmonising the national qualification system with the European system, so as to provide coordination with the qualification system of the European Union. The Draft Strategy also contains introducing compulsory secondary education system, which, in the opinion of the authors of this text, is not a bad concept, provided that it does not cause a negative impact, that is, that anyone who enrolls in a secondary school must graduate, regardless of the quality of acquired knowledge.

REFERENCES

Draft Education Development Strategy in the Republic of Serbia (2004). Ministry of Education and Sport of the Republic of Serbia.

Grandić, R. (2001). *Osnovi pedagogije – priručnik*. Novi Sad. The author's own edition

Kabok, J. (2011) *Finansiranje po učeniku: novi model finansiranja osnovnog i srednjeg obrazovanja u Republici Srbiji*. Collection of papers from the Conference on Contemporary trends in the European Economy, Novi Sad, October, 2011

Kovač Cerović T., Grahovac, V., Stanković, D., Vuković, N., Ignjatović, S., Šćepanović, D., Nikolić, G., Toma, S., Knežević, G. (2004) *Kvalitetno obrazovanje za sve – izazovi reorme obrazovanja u Srbiji*. Belgrade: Ministry of Education and Sport of the Republic of Serbia.

Marković, D.; Ilić, B., Ristić, Ž. (2010). *Ekonomija znanja – top menadžment i liderstvo znanja* Belgrade: Etno stil, 2010

Rakić, Lj. (2011). *Consolidating Financial Reports of Educational Institutions in the Republic of Serbia (unpublished doctoral dissertation)*. Subotica: Faculty of Economics

<http://www.mpn.gov.rs/prosveta/page.php?page=101> retrieved April 10, 2013.

www.cep.edu.rs/sistem-obrazovanja-u-srbiji/sistem-obrazovanja-u-celini > retrieved April 10, 2013.

www.mpn.gov.rs; retrieved April 6, 2013.

www.mpn.gov.rs/sajt/page.php?page=129 retrieved April 10, 2013.

www.pdis.org.rs > retrieved April 21, 2013

<http://www.mpn.gov.rs/prosveta/page.php?page=79> retrieved April 7, 2013.