

VITOMIR JOVANOVIĆ

The institutional conditions of adapting to future challenges in the Serbian education system

ABOUT THE PROJECT

The “**Future Challenges to Education Systems in Central Eastern European Context**” (EDUC, <https://cps.ceu.edu/research/educ>) is a two year comparative research project aiming at assessing the ability of the education systems of five Central-Eastern European countries to adapt to various ongoing changes, such as technological changes and their impact on labor markets, demographic changes, populist politics and autocratic governance, old and new inequalities, changing gender roles, globalization, etc. The research focuses on the adaptability of education systems determined by the interplay between governance and the institutional operation of schools in Poland, Hungary, Slovakia, Serbia and Romania. This report was supported in part through a grant from the Open Society Foundations.

ABOUT THE PAPER SERIES

Working Papers reflect the on-going work of academic staff members and researchers associated with the Center for Policy Studies/CEU. They are intended to facilitate communication between CPS and other researchers on timely issues. They are disseminated to stimulate commentary and policy discussion among an international community of scholars. These Working Papers are results of research stemming from projects started by the CEU Center for Policy Studies. The CEU Center for Policy Studies has merged into the CEU Democracy Institute as of September 1, 2020. For more information see <https://democracyinstitute.ceu.edu>.

ABOUT THE AUTHORS

Vitomir Jovanovic, PhD is a researcher, statistician and educational consultant from Belgrade, Serbia. His special fields of interest are educational achievements, school level factors, policy evaluation and equity in education. He can be contacted at vitomirj@gmail.com.

The paper was reviewed by **Peter Rado**, research fellow at the Democracy Institute of Central European University in Budapest, Hungary, lead researcher of the project “Future Challenges to Education Systems in Central Eastern European Context (EDUC)”.

TERMS OF USE AND COPYRIGHT

The views in this report are the authors’ own and do not necessarily reflect those of the Central European University or any of its entities. This text may be downloaded only for personal research purposes. Additional reproduction for other purposes, whether in hard copies or electronically, requires the consent of the author(s), editor(s). If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the research project, the year and the publisher.

CENTER FOR POLICY STUDIES / DEMOCRACY INSTITUTE
CENTRAL EUROPEAN UNIVERSITY
Nádor utca 9, 1051 Budapest, Hungary
<http://cps.ceu.edu>, cps@ceu.edu

THE INSTITUTIONAL CONDITIONS OF
ADAPTING TO FUTURE CHALLENGES
IN THE SERBIAN EDUCATION SYSTEM

Vitomir Jovanovic

CONTENTS

INTRODUCTION: PURPOSE OF THE STUDY	4
I. SHORT DESCRIPTIVE SUMMARY OF EDUCATION REFORMS AND MAJOR SYSTEMIC CHANGES IN EDUCATION SINCE 1990	5
2. THE EDUCATIONAL POLICY AGENDA OF THE LAST FIVE YEARS: THE POLITICAL CONTEXT, MAIN PROBLEMS RELATED TO THE EDUCATIONAL POLICY AGENDA OF GOVERNMENTS, THE RELATIVE PERCEIVED WEIGHT OF FUTURE CHALLENGES.	10
3. RESEARCH AND ASSESSMENT DATA INDICATING THE ACTUAL PREPAREDNESS OF THE EDUCATION SYSTEMS TO RESPOND TO MAJOR FUTURE CHALLENGES (PRIMARILY, EVIDENCE ON EDUCATIONAL OUTCOMES, COMPETENCES AND SKILLS, ATTITUDES OF STUDENTS AND SECONDARY SCHOOL GRADUATES)	12
3.1. Progression in education and diversification of learning pathways (time spent in general education, the space for program diversity at different levels of education, school structures and selection in education)	14
3.2. Learning outcomes in connection to basic competences and adaptive/threshold skills. (On the basis of available research and assessment evidence.)	15
4. SCHOOL-LEVEL ADAPTATION	18
4.1. The scope of the professional, organizational, and fiscal autonomy of schools	18
4.2. Mandatory tasks deployed to schools in connection with self-evaluation and school development (quality management)	19
4.3. The efficiency of self-evaluation-based school development procedures	20
4.4. School-level change: school development planning and external professional support	21
4.5. Summary of research and evaluation results on the quality of schools (strengths, weaknesses, problems)	21
5. GOVERNANCE ENVIRONMENT	23
5.1. Concise description of the structural skeleton of key functional governance subsystems: management, financing, content regulation (curricula and standards), quality evaluation (external school evaluation, regular assessment of student performance and examination, information system), and professional services.	23
5.2. Financial allocation in the Serbian educational system	25
5.3. Types of learning outcomes emphasized by centrally issued curricula and standards.	26
5.4. The analysis of the effectiveness of the existing professional accountability system - overview of concrete specific governance instruments with the potential of working as drivers for conveying external expectation to schools.	27
6. COVID-19 EDUCATION RESPONSE	28
CONCLUSION	31
REFERENCES	33

INTRODUCTION: PURPOSE OF THE STUDY

This paper presents the analytical study of the Serbian educational system following the analytical framework developed for the comparative study that enlightens future challenges for the educational systems of Central Eastern Europe.

The need for such a study is the dramatic change of the past two decades, as well as the continuous challenges expected in the societal, economic, technological, demographic and political environment of all education systems in the next two decades. These future changes are already imposing serious adaptation-related challenges to individual schools and school systems. The “Future Challenges to Education Systems in Central Eastern European Context” (EDUC) is a project that aims to create a comparative study of educational systems in Eastern Europe within systems that underwent dramatic social change from communist to “neoliberal” societies based on a free-market economy (“transition”). The study focuses on the following five sets of major external challenges: (1) the impact of new technologies on the labour market, (2) demographic changes and the new patterns of migration, (3) the impact of populist and authoritarian politics, (4) prevailing old and emerging new societal inequalities, and (5) the impact of the globalization of learning environments and the internationalization of education.

This analytical study about the Serbian educational system starts with a broad overview of the historical and social changes of the last 30 years that are important for understanding the current changes and anticipating future challenges. It continues with a more in-depth presentation of the major and broad social changes of the last five years that have had an impact on the education policies, and also interprets the signals from the political and social system in a broader sense. Following the universal structure for comparative analysis, the study maps in the next chapters preparedness for adaptation to growing and changing skill demands on the labour market due to technological innovation, economic change, and fluctuating and unstable labour markets, as well as a more centralised political system. Two chapters describe the school level and government level of capacities for future challenges through the lens of the recent policy changes. This chapter answers the questions what are the major incentives for, and the main obstacles to shifting to a form of education that is more personalized, that is better oriented towards the development of adaptive skills, and that is more equitable – as well how much are the various future challenges reflected upon in the educational policy discourse and in education modernization strategies in Serbia. The last chapter tries to anticipate the future adaptation capacity of the Serbian education system in relation to facing the strange and unseen crisis caused by COVID-19, thereby seeing this unfortunate event as a kind of experiment in vivo that can highlight the flexibility and capacities of teachers and students, as well as policy makers, in relation to coping with stressful and unexpected circumstances.

1. SHORT DESCRIPTIVE SUMMARY OF EDUCATION REFORMS AND MAJOR SYSTEMIC CHANGES IN EDUCATION SINCE 1990

During the communist era, in the 1970s, the Yugoslavian Ministry led by Mr. Stipe Šušar undertook an (in)famous education reform that resulted in a more directed system of education. This was done because of the need for economic reform, and the demand for higher productivity in society. The forthcoming recession that led to the fall of communism was already becoming apparent. The basic idea of the reform was to create a more functional relationship between the type of education that students acquired and employment; i.e., between educational activities and associated work.¹

This new “directed education” started in 1974 and was a frequent target of critiques because students chose their vocation in the last years of their secondary education school, frequently not enrolling in their desired faculty in accordance with their former choice. The beginning of the nineties was marked by the start of the civil war caused by the disintegration of the Socialistic Federative Republic of Yugoslavia. The only thing that happened in the field of education was the abolition of Stipe Šušar’s “directed” secondary education system, followed by the reintroduction of gymnasiums (four-year general secondary education schools) and secondary vocational schools (three-year and four-year ones) (1990).²

These years were characterised by severe economic crises caused by sanctions and the war. Recession led to various cuts in the field of education. In 1994, the government controlled by President Slobodan Milošević introduced more pronounced state control in the domain of founding, regulating, and financing education, as well as centralism in decision making. This resulted in the famous “rulebook for the financing of school staff and teachers” of the ministry led by Mr. Danilo Ž. Marković, which remained in force until the late 2000s (1994). In spite of his communist and socialist (ideological) background, the government of Slobodan Milošević allowed (by the end of the ‘90s) the opening of the first private secondary schools (secondary education in Serbia is not still obligatory). The socialist government implemented privatisation in many areas, which had to be followed by certain changes in ideology. This was also accompanied by curriculum changes aimed at modifying existing curricula in order to reduce the level of communist ideology in teaching content.

When one observes the video recordings of classes from the ‘70s, the influence of communist ideology is clearly visible and almost omnipresent, which may seem surprising from today’s point of view. This period of the 1990s was also marked by a complete lack of data, evaluation, and impact analysis in the field of education. This was not surprising due to the severe conditions and the fact that the bare existence of the population was at stake due to the lack of elementary goods, the presence of inflation, and the war in Bosnia. An additional burden and cause of the lack of important steps and

1 Šušar, S. (1977). *Škola i tvornica: u susret reformi odgoja i obrazovanja*: Zagreb: Školska knjiga.

2 Bačević, J. (2006). Antropološka analiza uvođenja usmerenog obrazovanja u SFRJ. *Antropologija* 1(1), 104-126, Retrieved from http://www.anthroserbia.org/Content/PDF/Articles/bacevic_usmereno_obrazovanje_u_SFRJ.pdf

reforms in the field of education was the refugee crisis in Serbia: the country, at that moment, received more than 350,000 refugees who had been expelled by the Croatian army in the initiative called “Oluja” (“Storm”).³ In many classrooms in Belgrade, the number of students increased to up to 40.

The period preceding the 1990s was characterised by a teaching orientation that aimed to develop some kind of broad academic knowledge through traditional didactic-methodical approaches to teaching work. The education process was neglected and marginalised, which led to the use of the old didactic method, heavily loaded with frontal, repetitive, and reproductive teaching. At this time, the number of students suddenly increased, which led to insufficient staff capacity to implement teaching goals. The vocational training system was old and not in line with temporary changes in the world economy, while the domestic economy was in ruins. In that period, after the Dayton Agreement, the government lauded and permitted the opening of the first private primary schools.

The uprising that followed 5 October 2000 led to large-scale social changes, and a new ideology more similar to neoliberalism, as well as privatisation, which also caused certain changes in education policy. Education began to be perceived as an important tool for improving the economy and creating a more competitive labour working force. The improvement of educational quality started with standardizing educational conditions and the characteristics of educational and teaching process and its outcomes (i.e. student achievement) (2003). This was linked to the establishment and development of the system of internal and external evaluations of school work. The education ministry and institutes started conducting training in schools and established regional school offices with pedagogical advisors (2003). The formation of the institute for improving the quality of education and the institute for the evaluation of the quality of education led to the creation of the first data about the educational process.

So-called “democratic changes” in society were also reflected in the field of education, leading to a decrease in the centralisation of the educational system and the provision of more autonomy for schools and more participative processes of school governance. The election of school principals became decentralized, but was still influenced by political parties at the local level: self-governments chose and elected the members (three parents, three teachers, and three local self-government representatives) of the school boards which elected school principals (2003). Although the process was also influenced by politics, it was now influenced by local politics, which slightly differed in different regions and municipalities.

A school self-evaluation process was, for the first time, introduced by the newly formed educational institutes. Also, the professional development of teachers and other staff in education for the first time became a feature of the educational system (2003). Many forms of training, funded by the EU and USA, were provided to teachers as “a product from the West,” which created certain resistance from more tradition-oriented teachers.⁴

One important change was the formation of state bodies – so-called councils – and professional bodies and institutions in charge of quality assurance in education (the Institute for Quality and Evaluation, National Educational Council, Council for secondary Vocational Education) (2003). This was claimed to make the decision-making process in the field of education policy more participative, more competent, and more influenced by experts and less by politicians.

3 The Human Right Watch (2006). *A Decade of Disappointment: Continuing Obstacles to the Reintegration of Serb Returnees*. The Human Right Watch. Retrieved from: <https://www.hrw.org/report/2006/09/04/croatia-decade-disappointment/continuing-obstacles-reintegration-serb-returnees>

4 Hebib, E. & Spasenović, V. (2011). Školski sistem Srbije: stanje i pravci razvoja. *Pedagogija*, 3 (11).

The lack of data created the need for the first national testing of the educational achievements of students (2004) and the creation of achievement standards. Human capacities in the related institutes were minimal and national testing was not done every year as it should have been. The educational system also became more oriented towards the wellbeing of students and the tendency was to make it less rigid and traditional, leading to changes in the assessment of first graders – they started to receive descriptive grades instead of summative ones, which also pointed teachers towards making more formative assessments (2003).

The logical step of the country opening up towards the world after almost a decade of isolation involved the first incidence of participation in international education quality testing schemes (PISA, TIMSS, 2006). The related “PISA shock” put an end to implicit beliefs that the Serbian domestic education system was quite good, and that “our children are very smart and they are winning many international competitions” – as well as forms of denial, such as that “PISA samples included the worst classes” (Minister Vuksanović⁵). However, public and policy makers slowly started to accept and become adjusted to the reality of the below-average student achievement that could be traced to years of isolation and stagnation in educational reforms. PISA results also started to create the first steps in the reform of curricula, which increasingly excluded extensive teaching content in favour of more learning-outcome-oriented teaching, which was designed to foster more functional over more reproductive type of knowledge. Public discourse about education changed: instead of evaluations of education in line with a “l’art pour l’art” approach, the first mentions of the application of knowledge and its relevance to the labour market slowly appeared.⁶ The changing role of inspections – from control to the more constructive and supportive role of pedagogical advisors in the Regional School Offices – was designed to improve the school ethos and create autonomous motivation in schools.

The desire for evidence-based policymaking led to the introduction of standards of achievement for the end of primary education. Research findings about the importance of early learning for future outcomes became manifest in policies and were supported through the introduction of an obligatory preparatory preschool program (2007).

The connection of secondary vocational education and the needs of the labour market became apparent in the process of privatisation and foreign investments that happened in the process of transition. The paradigm of the neoliberal approach became increasingly freely referred to in the media and public appearances of some ministers. Secondary vocational education reform aimed at harmonizing education with the needs of the economy and the economic development of society (Framework of the EU Program, modular approach and increased volume of hands-on teaching and professional practices) (2009-2012).⁷

In 2010, the process of reforming the curriculum of gymnasiums (2010) also started. Gymnasiums in Serbia, aware of the fact that education in the world was changing in a revolutionary way, through the Association of Gymnasiums of Serbia in 2005 in the form of an attempt to reform gymnasiums, proposed and adopted the document “Program of changes in gymnasium education,” but lacked the concretization of changes defined by that document. Later, two more documents related to the reform of gymnasiums were adopted: “Directions for the Development of Education” (National Education

5 <https://www.vreme.com/cms/view.php?id=399848>

6 <http://www.politika.rs/sr/clanak/8477/Наши-ђаци-поново-пали-на-ПИСА-тесту>

7 Hebib, E. & Spasenović, V. (2011). Školski sistem Srbije: stanje i pravci razvoja. *Pedagogija*, 3 (11).

Council 2010)⁸ and the “Strategy for the Development of Education in Serbia until 2020” (Government of the Republic of Serbia 2012)⁹, but their implementation in gymnasium education has not been significant until now.

The primary education system did not develop a compulsory final exam for the end of primary education until the 2010/2011 school year, in spite of the existence of institutes that were created.

A further step was the introduction of inclusive education which started in Serbia due to the new law in 2009. This process generated new challenges for unprepared education systems. The new law allowed parents to choose special or regular school for their children, facilitated the hiring of pedagogical assistants for Roma children, and personal assistants for children with disabilities, as well as individual educational plans (2009). This process was associated with challenges at the beginning, but ultimately led to more flexible teachers who are more competent at individualising the teaching process.¹⁰

Standards for educational achievement at the end of primary education were adopted for the first time only then, in 2011. The verdict about the standards by the teachers and expert community is that the latter were too broad, and that it was hard to create outcomes and specific evidence based on them.

In 2012, after the left-oriented coalition of the Democratic party (DS) and Socialist party (SPS), the Serbian progressive party came to power (SNS). This was a big change, because for the first time a coalition was not needed (although SPS also entered the new government). This created expectations about more effective and efficient reforms in the area of the economy and other fields, while in terms of foreign policy and ideology little changed in comparison to the previous style of governance, although as the years went by, the more neoliberal approach of the SNS became apparent instead of more classic and traditional right-wing approach.

In 2012, the Serbian education system introduced school quality standards for the first time. The following year, standards of educational achievement at the end of secondary education were adopted (2013). This slow process suggests the very low priority of educational reform for any government following 2003, and/or weak capacities for reform implementation. In 2014, for the first time during the graduation exam when finishing primary education, students took a combined test (biology, physics, history, geography, and chemistry) and for the first time tests in maths and the Serbian language included previously unknown items (2014). The big change for the research community was the first opening up of data for all indicators and schools in education, but some of this data was later withdrawn from the public domain (2016). The idea was also to enlarge the market for textbooks, which led to the slightly strange policy that small publishing houses had to achieve a minimum 5% market share to receive accreditation for their textbooks by the Institute for the Improvement of Education (2016). After the disappearance of small publishing houses, a new law was introduced to additionally liberalize the market for textbooks (2018), but this in practice led to the monopoly of one foreign publishing house that had more than 60% of the market share for textbooks.¹¹

8 https://www.cipcentar.org/i_roditelji_se_pitaju/PDF/strategija/PRAVCI%20RAZVOJA.pdf

9 <https://www.gradjanske.org/strategija-razvoja-obrazovanja-u-srbiji-do-2020-godine-sazetak/>

10 UNICEF (2017). Situaciona analiza: Položaj dece sa smetnjama u razvoju i invaliditetom u Republici Srbiji. Beograd: UNICEF. Retrieved from: <https://www.unicef.org/serbia/media/2631/file/SitAn%20polo%C5%BEaj%20dece%20sa%20smetnjama%20u%20razvoju%20i%20invaliditetom%20u%20Srbiji.pdf>

11 https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-school-education-58_sr

Another strange policy was introduced same year: the number of psychologists and pedagogues in schools was reduced according to the new norms, with the excuse of making some public savings, but these savings were so minor and the damage to children (especially to those from vulnerable groups) was so huge that the policy seemed irrational.

One of the biggest goals publicized by the present SNS Minister of Education in relation to reforms was the classical neoliberal narrative about technological development and labour market needs that should be fostered by educational processes. The issue in education that received the greatest media attention was dual education (the previous minister Verbić wrote several negative texts about this topic and was replaced¹²). The introduction of dual education in secondary education in Serbia was implemented by the new law about dual education (2017), which introduced new dual educational profiles in which students learn through work in companies and receive a salary.

The other moves of the present Minister Šarčević were oriented towards gaining more control over education system and more centralisation. The new law increased the control of the Minister over school principals – the Minister obtained the power to fire principals and to confirm the decision of school boards (2017). The influence of politics became apparent and more visible than before: all school principals who were not willing to become members of SNS were replaced with new ones. Some principals then approached the media as an act of resistance. This was connected with the process of licensing of school principals started by the Ministry (2018) through a two-day training event.

In preschool institutions, with the help of UNICEF, a new curriculum for preschool institutions was created (“*Godine uzleta*”) based on child wellbeing, play, and development (an integrated approach to learning) (2018). No reform steps that could improve students’ achievement were even considered. There were only minor changes in the curriculum for primary schools (except for major changes in relation to the subject of informatics) aimed at preparing the system for future curricular reforms through an emphasis on project teaching and active learning, which in the past did not produce good results. Only three forms of training were created for teachers – related to the teaching based on learning outcomes, and educational standards (2018).

Some superficial issues were also addressed in connection with secondary education. Curricular reform in secondary education created a curriculum based on learning outcomes and competencies and introduced a greater number of elective subjects (2018).

The other big theme of this Ministry was digitalisation – some moves were taken towards the digitalization of schools through the provision of new equipment, training for teachers, and e-textbooks – but teachers complained about the lack of training and the added value of digital textbooks in relation to actual education quality (2018). E-diaries were introduced that are in practise used for the better control and surveillance of students, as well as individual educational identification number, which may create some privacy issues.

The main impression regarding the work of the former and present Ministry of education is that it is very concerned that its power and control should lead to more efficiency. In practice, the narratives of the Minister are in line with neoliberal narratives about profit, the labour market, and technological development, while children’s wellbeing, values, solidarity, inclusion, poverty reduction, humanity, and other educational benefits are neglected or ignored. Education is seen as a tool for creating a labour force that can meet the needs of big companies, as explicitly stated in many talks by Mr President Vučić.¹³

12 <https://www.blic.rs/vesti/drustvo/verbic-udario-na-vucica-ministar-nece-dualno-obrazovanje-u-srbiji/jfkmn1k>

13 <https://talas.rs/2020/01/20/zasto-politicari-zapostavljaju-obrazovanje-u-srbiji/>

2. THE EDUCATIONAL POLICY AGENDA OF THE LAST FIVE YEARS: THE POLITICAL CONTEXT, MAIN PROBLEMS RELATED TO THE EDUCATIONAL POLICY AGENDA OF GOVERNMENTS, THE RELATIVE PERCEIVED WEIGHT OF FUTURE CHALLENGES.

Overview. The impression is that the main orientation of this Ministry of Education is on the meaning of education in relation to the labour market, without putting any emphasis on the democratic-, citizenship-, or human values of education. Those themes are the key ones in the public appearances of the Minister and other representatives of the government.¹⁴ Digitalization, the competitiveness of new educated working force, dual education, employability, learning for the future (e.g. plans for introducing coding and programming in the third grade of primary schools) are priorities of this Ministry, as are visible in public appearances and narratives. Equity, social justice, the school ethos, peer support, dropout prevention, and inclusive education have become marginal topics in public events and in action and operational themes. Still, the Ministry has also been trying to fulfil the goals listed in the Strategy for the Development of Education in Serbia by 2020, which include raising the quality, coverage, relevance, and efficiency of education in the Republic of Serbia. The gradual introduction of the concept of high school graduation, work on outcomes-based teaching, the introduction of programming and entrepreneurship topics, the introduction of dual education, and the introduction of elective subjects in high schools, as well as digitization (equipping schools with computers and training for online textbooks) were important steps in the last five years. One of the most important steps was the introduction of dual education into secondary education in Serbia in 2017, which prescribes new dual educational profiles in which students learn through work at companies and receive a salary.¹⁵

Constantly low achievement on PISA. The main problem on the educational policy agenda is still the poor achievement of students on a global comparison (new PISA results) that shows that there has been no development or progress. The new PISA results received very little media attention. There have been no major steps toward changing any aspects of the quality of teaching (if we exclude the three training initiatives related to outcome-based learning which included almost total coverage of all teachers) but standards and learning outcomes at the end of every grade and for every subject are still lacking. Some minor changes have happened in the curriculum for primary schools (and major changes for the subject of informatics) aimed at preparing the system for future curricular reform through an emphasis on project teaching and active learning. A new curriculum was adopted in preschool education which includes a lot of innovations oriented towards improving child wellbeing, more active relations with parents and educators, and stresses the importance of play and research in development, which all constitute a more integrated approach to learning. Similarly, curricular reform in secondary education emphasized the new curriculum based on learning outcomes and competencies and the higher number

14 <http://rs.n1info.com/Vesti/a235257/Sarcevic-Osluskivati-potrebe-trzista-rada-pri-upisu-u-skole.html>

15 <https://www.srbija.gov.rs/tekst/en/129780/dual-education.php>

of elective subjects, which have a more informal, academic, and multidisciplinary character that is implemented through project teaching. Starting in the next school year, the third year of high school will involve six new elective programs, two of which will be selective. The programs offered are: Applied Sciences, Fundamentals of Geopolitics, Economics and Business, Religions and Civilizations, Modern Technologies, Education for Sustainable Development, and Art and Design.

Neoliberal narrative. The narrative of the importance of education for the labour market and economic growth as a (neo)liberal approach to education, whereby better schools attract more students and preserve the existing positions of their teachers is, contradictorily, connected with greater centralization within the educational system itself. The new way of dealing with educational challenges is seen as greater control and centralization of decision making. The greater control of the Ministry over school principals is facilitated through the new law which enables the Minister to control and discharge the duties of some principals and to confirm the decision of school boards. The new criteria related to the choice of school principals are mainly connected with the process of licensing school principals started by the Ministry. The New Law about textbooks additionally liberalized the market for textbooks, allowing big private publishing houses to obtain control over the labour market. The National Education Council (NEC) was formed in 2006 to help define Serbia's educational standards, curricula, and examinations. Since 2017, this body has held a strictly advisory role that spans all education levels, with the exception of higher education. Before 2017, it had also been involved in the decision-making process as an external, independent, and competent body constituted from 35 members that represented a wide range of stakeholders, including university professors and teacher's associations.

Digitalization in education, which is one of the priorities of the government, took place through equipping schools with new equipment, laptops for teachers, and smart boards, as well as with new e-textbooks and e-diaries which changes the assessment practice – teachers see only the grades from their subjects, and parents also have delayed but direct insight into the marks of their children. It seems that digitalisation is used in order to improve control over students, teachers, and parents. Also, preparation has started for the introduction of a general and vocational exam at the end of secondary education, which will be held in secondary schools which will then have selection for the purpose of entry to faculties instead of the existing practice of an entrance exam at the faculties themselves.

The biggest challenges in the future period for education in Serbia are the stagnation of students' achievements, together with a decrease in the number of students, which creates worries about the stability of workplaces of teachers. Strong centralisation in decision making leads to a decrease in the creativity of teachers and school autonomy, and the decrease in the impact of consultative bodies such as the National Educational Council raises the question of the quality of related decisions. Quite weak student achievements on international assessments are connected with the lack of reform and no big steps in raising the quality of teaching, involving no changes in the curricula for primary schools, and no changes in initial teacher education and the selection of teachers. One of the greatest challenges is the increase in inequity in education that is reflected through the increase in variability in the socio-economic status of schools,¹⁶ which indicates some kind of mild form of school segregation through socio-economic status, connected to high-level socio-economic inequities both on a regional and individual level.

16 Radišić Jelena, Baucal Aleksandar & Jovanović Vitomir. Contribution of SES to Student Achievement at PISA: 2003-2012, ECER 2015, Budapest, Hungary, 7-11.9.2015; Lazarević, Lj., Orlić, A. (2018). PISA 2012 mathematics literacy in Serbia: A multilevel analysis of students and schools, *Psihologija*, 51(4)

Another big challenge is a political problem – the decrease in democratic processes, which can be illustrated by the fact that only three political parties entered the national parliament at the last elections (21.6.2020.). The biggest party conquered 75% of seats in the parliament. The opposition boycotted the elections, while other opposition parties did not succeed in passing the minimum threshold of 3% of votes. Opportunities for dialogue are smaller than ever, and the atmosphere in society is not positive in spite of some economic progress and a lower unemployment rate. The impression is that values of solidarity, tolerance, humanity, and difference are being downplayed, which puts the education system at the bottom of social priorities. In some public appearances, the Minister mentions that the system will create teaching robots and holograms of teachers. This vision of education is oriented towards voters of the lowest level of education. Approximately 60,000 people leave the country on an annual basis, but less due to problems with employment or living standards and more because of dissatisfaction with the social climate.¹⁷ Education is seen as a tool for technological development and future and present profit creation.

3. RESEARCH AND ASSESSMENT DATA INDICATING THE ACTUAL PREPAREDNESS OF THE EDUCATION SYSTEMS TO RESPOND TO MAJOR FUTURE CHALLENGES (PRIMARILY, EVIDENCE ON EDUCATIONAL OUTCOMES, COMPETENCES AND SKILLS, ATTITUDES OF STUDENTS AND SECONDARY SCHOOL GRADUATES)

PISA 2018 achievements. This section will address the new PISA results, as this framework of literacy in an international context gives a comparable view of the actual preparedness of educational systems to respond to major future challenges. For the first time for Serbian students, there were included a couple of sections about students' attitudes which give an in-depth picture of capacities related to the major future challenges that students and the education system will face. This data will be complemented with data from national external evaluations as well as domestic research about students' habits and attitudes (research from the Institute for Public Health, Dr Milan Jovanović Butut, in the following chapter).

From April to June 2018, 8,442 15-year-old students from over 200 schools participated in the PISA 2018 study and completed tests in reading, math, and science, and global and financial literacy. Seventy-nine countries from all over the world participated in this study. Serbia achieved less than the average score on all three literacy tests, which topic is the main challenge for education in Serbia, and similar to the scores obtained in previous testing cycles. This is a cause of disappointment for many people in the educational system, especially because Serbia did not participate in PISA 2015, which created expectations about the possibility for more visible improvements. The reasons for avoiding testing at this time were specified as economic, which seems irrational. The fact is that there were no bigger steps towards improving the quality of teaching itself, or investing in teachers, which are the main means of raising students' achievements.¹⁸

17 Rašević, M. (2016). Migracije i razvoj u Srbiji. Beograd: UNDP. Retrieved from: <https://serbia.iom.int/sites/default/files/publications/documents/Migracije%20i%20razvoj%20u%20Srbiji.pdf>

18 Hattie, J.D. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. London: Routledge,

In Serbia,¹⁹ the average achievement on the mathematical literacy scale is 448 points, on the reading literacy scale 439, and on the scientific literacy scale, 440 points. The average achievement in OECD countries is around 500 points. Compared to OECD countries, the competences of Serbian students are lower by 48 points on the reading literacy scale, 41 points on the mathematical literacy scale, and 49 on the science literacy scale, which corresponds to the effect of one-and-a-half years of education in OECD countries. Similar results are obtained when comparing achievement with the average of EU member states. Student socioeconomic status explains 8% of the variance in achievement on the reading scale and 9% of the variance on mathematical literacy scale. This data suggests that the socioeconomic status of students in Serbia is less related to student achievement than in OECD countries, indicating the greater fairness of the Serbian education system. Girls have better reading scores by almost 30 points, representing one year of schooling. The achievements of girls and boys on the scales of mathematical and scientific literacy are not significantly different. In OECD countries, boys' achievement in mathematics is better than girls' achievement. Every third student does not reach the basic literacy level (38% on the reading literacy scale, 40% mathematical, and 38% scientific). These results in 2003 were almost identical and just as alarming, but no improvement has been made since then. It is thought that these students will have difficulty meeting the challenges they will face in continuing their education, employment, career progression, and coping in the modern world. In the OECD countries, between 21% and 25% of students fall into this group. The former results are connected with the fact that half of the students in the Serbian educational system do not receive clear feedback from their teachers during class.

Also, there is strong segregation in three-year educational profiles in secondary schools based on achievement. More than 80% of students in three-year vocational schools do not reach the basic literacy level. Their achievement is weaker than the achievement of students in gymnasiums by over 140 points.

Students' attitudes. Regarding students' attitudes towards school, further education and life, they are mostly positive and promising. Most students in Serbia were late at least once to class in the two weeks prior to the PISA test (61%). One in four students were absent for unjustified reasons, while 41% were absent from some classes. The percentage of students who are late or absent is significantly lower in OECD countries. Students from Serbia value school less than students from OECD countries. Every fourth student in Serbia thinks that it is not important to strive to achieve in school. Most students (80%) are satisfied with their lives. Students who are more vulnerable to violence and who have a lower sense of belonging to school are also less satisfied with their lives. Most students (62%) expect to graduate, a similar proportion to those in OECD countries, where 56% believe they will graduate. Boys as well as students with lower socioeconomic status have lower educational aspirations.

One of the biggest challenges is that Serbia still does not have any standardised and comparable data about the achievements of students in secondary schools because of the lack of a graduation exam. The latter will be introduced from 2021, and this entry exam for further education faculties will also have an evaluative function for secondary schools, which will be placed in this position for the first time in 30 years (if we neglect external evaluations by pedagogical advisors).

The external evaluation of secondary schools is done according to standards concerning the quality of education. Pedagogical advisors come to school and talk with students, parents, and teachers, observe classes, check documentation, and assess schools based on a two- or three-day visit. They assess every

19 All result about PISA results in Serbia are taken from the publication: Čaprić, G. & Videnović, M. (2020). PISA 2018 izveštaj za Srbiju. Beograd: Ministarstvo prosvete, nauke i tehnološkog razvoja.

indicator in every area of quality from 1 to 4, which creates an aggregated single mark for the whole school. One quarter of the both gymnasiums and vocational schools are awarded '2' as a mark, while there are far more gymnasiums (38%) with the highest mark (4), than secondary vocational schools (20%). There are no secondary schools with the lowest mark. More specifically, evaluators are least satisfied with the development of monitoring and evaluating student performance in accordance with the formative approach, but also with the quality of differentiation and individualization of teaching. These findings are similar to the PISA results for primary education. The ethos in schools is the factor most highly evaluated – i.e. the development of cooperation at all levels and the safety of schools.²⁰

3.1. Progression in education and diversification of learning pathways (time spent in general education, the space for program diversity at different levels of education, school structures and selection in education)

PISA 2018 measured students' beliefs about the value of schooling and learning. The questionnaire also included questions about the latter's attitudes towards schools. Students stated how much they agreed with the importance of working hard at school, and whether working hard at school would help them get a better job or enrol in a good college. The task of the respondents was to estimate how much they agreed with the view that hard work in school is important, and if it would help them enrol in a good college or find a good job.

The fact that every fourth student disagreed with the statement that it is important to work hard at school is troubling. A similar percentage does not believe that working hard at school will help them find a good job. There was slightly greater faith in the connection between success in school and enrolment in a good college. When the answers to these questions are examined further, the 10% of students who do not believe that school success will help them later in life, either in terms of choosing a college or in the job market, stand out. Students' answers to questions about their attitudes toward school and learning were used to determine the index of students' attitudes toward school value. The index is constructed so that the value of '0' corresponds to the OECD average, while '1' is the standard deviation. The value of the index in Serbia is -0.34 , which is slightly below the average in OECD countries, which is another confirmation of the inequality of Serbian education system.

Less than half of all students with low socioeconomic status expect to graduate from college. In the group with the highest status, almost all students (87%) expect to graduate. Quality teaching also implies that classroom teachers create an environment conducive to learning. This requires, first and foremost, that noise and clutter be kept under control, as well as ensuring that students can listen to what the teacher (and other students) are saying and that they can concentrate on learning tasks. In the PISA study, the highest values on the Disciplinary Climate Index – indicating the complete or near complete absence of classroom disruption – were observed in Japan and Korea. The average in Serbia is -0.1 , which is near the OECD average of zero.

Students reported how much support they get from parents by assessing how much they agree with statements (on a four-item scale) that describe parents' support in relation to building self-esteem, supporting educational efforts and achievement, as well as providing assistance when they have difficulties in school.

20 The Institute for Evaluation of the Quality of Education (2019). The Report about External evaluation (2017/18). Belgrade: The Institute for Evaluation of the Quality of Education. Retrieved from: http://vrednovanje.ceo.edu.rs/sites/default/files/izvestajiEE/Izvestaj_skolska_2017-2018.pdf

Based on the results, we conclude that the majority of students (namely, over 80% of them), feel that parents give them the support they need. However, it is important to keep in mind that there are a certain number of students in each school and in each class who are less privileged than others because they do not receive the necessary parental support. The school's task is to provide these students with additional help to mitigate the consequences of this lack.

PISA measures parents' perceived emotional support through a support index that weights and summarizes the answers to related questions. According to students in Serbia, this type of parental support is generally low. The only groups of students who perceive that parents' emotional support is at the OECD average level are high school students, 25% of students with the highest ESCS index, and girls. Students of three-year vocational profiles report the very minimal emotional support of parents (-0.5), as well as students with very low achievements (below secondary level) (-0.43).

Around 30% of boys at the end of primary school report they do not like school at all.²¹ Around 15% of children have difficulties communicating with their parents, while around 8% of students report that they do not receive enough support from their family.²² Around 10% of children have significant problems in relation to their peers and with their acceptance in their peer group. Around 17% of children play video games for more than four hours a day, while 16% of students watch TV for four or more hours a day on working days during the week. Eighteen percent of students are overweight, and 6% of students are obese.

The situation with online learning has dramatically improved in the last five years, but is still below the EU average. In 2018, 72.1 per cent of households in Serbia owned a computer (compared to 87 per cent in the EU28). Urban/rural differences are evident: 78.2 per cent of urban households own a computer compared to 61.8 per cent of rural households. The gap has slightly increased compared to 2017. In addition, almost half of all households with less than 300 EUR monthly income do not own a computer. However, 72.9 per cent of households had an internet connection (compared to 85 per cent in EU28 countries). Access to the internet is more common in Belgrade (82.2 per cent), compared to approximately 70 per cent of households in the rest of Serbia. Among the households that do not have an internet connection, one in five cite a lack of skills as the reason, and one in three do not have it due to a lack of financial means.²³ There is a strong correlation between computer use and educational background – 93 per cent of highly educated individuals, 80.5 per cent of individuals with secondary education, and only 41.1 per cent of individuals with less than secondary education used a computer within the last three months, opening up questions about the digital divide and suggesting an opportunity for helping children of lower socio-economic status to tackle the new challenges in education.

3.2. Learning outcomes in connection to basic competences and adaptive/threshold skills. (On the basis of available research and assessment evidence.)

Learning outcomes are important tools that are used to assess students and determine their level of learning and how improvements can be made; many countries define them as part of national learning

21 Institute for Public Health (2019). Report about Health of Children of School Age in The Republic of Serbia. Belgrade: Institute for Public Health. Retrieved from: <http://www.batut.org.rs/download/novosti/RezultatiIstrazivanjaPonasanjaDeceSkolskogUzrasta.pdf>

22 Ibid.

23 UNICEF (2019). Situation analysis of Children and Adolescents in Serbia. Belgrade: UNICEF. Retrieved from: https://www.unicef.org/serbia/media/13466/file/SitAn_publication_2019.pdf

standards or integrate them into their national curriculum frameworks.²⁴ Learning outcomes are usually organised according to student grade level, but in Serbia they are associated with the end of primary education according to the competency levels (basic, intermediate, and advanced).²⁵ The Institute for Education Quality and Evaluation (IEQE) introduced learning standards for the end of primary education (after eight years of schooling) in 2010, followed by standards for the end of the first four grades which are organised with two teachers per class in 2011, and the end of secondary school (after three or four years' education in secondary schools) in 2013. This was the first attempt at implementing a competency-based approach to teaching and learning. These standards are the key documents that define the standards for the national examination at Grade 8.

This approach allows for more individualised instructions for students, but also requires more training for teachers to properly understand and use the standards when assessing students, while related training for teachers has taken place since 2018. It is an open question whether it is possible through a three-day training event to provoke a change in teachers' approaches and equip them with complex competencies for designing and planning different kinds of teaching and learning that cognitively activate students. The latter demands a cognitive shift in teachers from a curriculum-based approach oriented around content to curriculum and teaching methods oriented towards achieving learning outcomes. The process of subject learning standards will help teachers better understand student learning levels and use that information in designing assessment and teaching plans. An important step towards improving teaching is the introduction of a new graduation examination at the end of secondary education that certifies the completion of schooling and enables student selection into tertiary education. There are some open questions among experts relevant to the implementation of the new reform, especially the low assessment capacity of teachers, particularly regarding formative assessment.²⁶ Also, the curriculum in most grades is not aligned with learning standards – it is highly prescriptive, leaving little space for teachers to adapt teaching to the needs of their students, although the ongoing curriculum reform tries to solve some of these issues. The new competency-based curriculum includes learning outcomes for each grade, which should help teachers better understand how their students may reach the end of learning cycles. The reform also introduces transversal competencies, such as problem solving and digital skills.²⁷

24 OECD (2013). *PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices*, PISA, Paris: OECD Publishing. Retrieved from: <https://dx.doi.org/10.1787/9789264201156-en>.

25 <https://ceo.edu.rs/стандарди-у-образовању/>

26 Maghnoij, S. et al. (2020). *OECD Reviews of Evaluation and Assessment in Education: Serbia*, OECD Reviews of Evaluation and Assessment in Education. Paris: OECD Publishing. Retrieved from: <https://doi.org/10.1787/225350d9-en>.

27 According to Article 12 of the Law on the Foundation of Education System (LFES), interdisciplinary (transversal) competencies are a combination of knowledge, skills and attitudes relevant to different real-life contexts that require their functional application. Interdisciplinary competencies are based on key competencies for lifelong learning, developed through the teaching of all subjects, applicable in different situations and contexts in solving various problems and tasks. They are required by all students for personal achievement and development, for inclusion in social trends and employment, and form the basis of lifelong learning. Interdisciplinary competencies for the end of compulsory basic education are: 1) competency for learning; 2) responsible participation in a democratic society; 3) aesthetic competency; 4) communication; 5) responsible attitude towards the environment; 6) responsible attitude towards health; 7) entrepreneurship and orientation towards entrepreneurship; 8) working with data and information; 9) problem solving; 10) co-operation; 11) digital competency. Interdisciplinary competencies for the end of secondary education are: 1) competencies for lifelong learning; 2) communication; 3) working with data and information; 4) digital competency; 5) problem solving; 6) co-operation; 7) responsible participation in a democratic society; 8) responsible attitude towards health; 9) responsible attitude towards the environment; 10) aesthetic competency; 11) entrepreneurship and entrepreneurial competency (MoESTD, 2019), *Zakon o Osnovama Sistema Obrazovanja i Vaspitanja [Law on the Foundations of the Education System]*, Ministry of Education, Science and Technological Development, Belgrade.

National data on student learning outcomes in Serbia is limited. Results from international assessments (PISA) revealed no changes from 2006 until now. The largest improvement during this period was in reading, where mean performance increased by 45 points, mostly from 2006 to 2009, but Serbia's position relative to other countries remained the same. Today, fifteen-year-old students in Serbia continue to lag more than one year (one year's worth of learning) behind their peers in OECD countries across all subject domains, particularly in science (49 score point difference).

This stagnation in the quality of education opens the question whether the changes in the education system in the Republic of Serbia were well adjusted and oriented towards increasing students' achievements and equipping them with relevant competencies for new and unstable labour markets in the globalised world. There are new policies such as the graduation exam at the end of secondary education and a curriculum oriented towards learning outcomes, but there is debate about whether the education system has the needed capacities to successfully change.

What is important to note is that there is large variation in coverage and other indicators in different parts of the country. One quite old study showed that only 7% of students from the poorest families enrolled in pre-primary education in 2008, compared to 64% of those from wealthier households.²⁸ The fact that less than 1% of students at Belgrade University come from rural families²⁹ is one of the indicators of both the persistent importance of students' social origin in academic achievement and the inequality in the system. With respect to learning outcomes, the performance of students from disadvantaged backgrounds in Serbia lagged around two years behind their peers from wealthier families (73 score point difference) in the reading domain of PISA 2018. However, 13.2% of students in Serbia from disadvantaged backgrounds are considered "resilient" (able to beat the odds and perform at a high level on PISA) compared to the OECD average (11.3%).³⁰

Outcomes also vary by geographical location. In 2013, the drop-out rate from primary education was 1% in urban areas, compared to 14.25% in rural areas,³¹ as well as in relation to learning outcomes – students attending schools located in Serbian cities scored on average 122.3 points higher in the PISA test on reading than students attending schools located in rural areas.³² Roma students are far less liable to complete primary education and to enrol in secondary education (only 25%).³³ Roma children are overrepresented in special schools (18 per cent) as well as in special classes (32.7 per cent). The number of children attending special schools has decreased by 25.3 per cent since 2010, which huge improvement is due to the implementation of the inclusive approach to education.³⁴

28 Pešikan, A. and I. Ivić (2016). The Sources of Inequity in the Education System of Serbia and How to Combat Them. Center for Educational Policy Studies Journal, 6(2). 101-124

29 Cvejic, S. (2010). Socijalna isključenost u ruralnim oblastima Srbije. Beograd: UNDP.

30 OECD (2019). PISA 2018 Results (Volume II): Where All Students Can Succeed, Paris: OECD Publishing, Retrieved from: <https://doi.org/10.1787/b5fd1b8f-en>.

31 Pešikan, A. (2015). Cross-sectorial Cooperation-focused Solutions for Preventing Dropout. Belgrade: Tempus Public Foundation, Retrieved from: http://oktataskesztes.tka.hu/content/documents/CroCooS/Country_Report_Serbia.pdf

32 OECD (2019). PISA 2018 Results (Volume II): Where All Students Can Succeed. Paris: OECD Publishing, Retrieved from: <https://doi.org/10.1787/b5fd1b8f-en>.

33 UNICEF (2019). Situation analysis of Children and Adolescents in Serbia. Belgrade: UNICEF. Retrieved from: https://www.unicef.org/serbia/media/13466/file/SitAn_publication_2019.pdf

34 IPSOS, UNICEF (2016). Analysis of the quality of education in schools and classes for students with disabilities, Belgrade: UNICEF.

4. SCHOOL-LEVEL ADAPTATION

4.1. The scope of the professional, organizational, and fiscal autonomy of schools

The process of the decentralisation of school governance started during the government of Prime Minister Djindjic – the election of school principals became decentralized, but under control of the political party at the local level (Law about foundations of education system from 2003, *Službeni glasnik*, 62/03 article 53). Local self-government had the right and obligation to choose and elect the members (three parents, three teachers, and three local self-government representatives) of the schools boards which elect school principals. This solution gave the illusion that process of election was more democratic and decentralised, but in practice the political party, through the local self-government, elected both parents, teachers, and its own representatives to school boards who were more connected or even members of the governing political party, which influenced the election of school principals. On the other hand, the process of the election of school principals was indeed more democratic and decentralised than before because the local election system gave the opportunity for people to have more influence on local processes.

The greater centralisation of the election of school principals came in with the new law about the foundations of the education system from 2017 (*Službeni glasnik*, 88/2017 article 123), according to which school principals are directly appointed by the Minister. The National Education Council had various problems with its functioning, and in this law by the new government it started to have only a consultative and no longer legally binding power (Law about the foundations of education system, *Službeni glasnik*, 88/2017 article 34.) The greater centralisation of the educational system started to be justified by the need for greater efficacy and stricter adherence to the rules. As has already been said, the new criteria for the choice of school principals are mainly connected with the process of licensing school principals that was started by the Ministry.

School principals, who are nominated by the local self-government, have very little autonomy in terms of allocating their school budgets. The fiscal autonomy of schools is quite high, but schools usually lack the budget to support different activities. Some autonomy over resource allocation is possible but only with very small amounts of the budget – typically more limited compared to school in other OECD countries.³⁵ Principals have no influence on teachers' salaries, but schools have considerable responsibility in terms of recruiting and dismissing teachers because school principals in Serbia select teachers through an open call for recruitment, according to PISA data.³⁶ However, this autonomy has decreased a lot in the last couple of years due to the obligation to prioritise unemployed licensed teachers

35 OECD (2013). PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, PISA. Paris: OECD Publishing. Retrieved from: <https://dx.doi.org/10.1787/9789264201156-en>.

36 Maghnouj, S. et al. (2020). OECD Reviews of Evaluation and Assessment in Education: Serbia, OECD Reviews of Evaluation and Assessment in Education. Paris: OECD Publishing. Retrieved from: <https://doi.org/10.1787/225350d9-en>

over novice teachers, the former who have lost their jobs because of decreasing class numbers due to the demographic decline. The Serbian ministry is solely responsible for establishing teacher salaries, as well as determining any salary increases.³⁷ The majority of principals never attend any kind of continuous professional training,³⁸ but recently the process of the licencing exam implies that training has started and become a mandatory and legal prerequisite for obtaining a school position (Law about foundations of education system, *Službeni glasnik*, 88/2017 article 122). Until the recent changes, the majority of school leaders had never received any formal training about key areas of their work, such as instructional leadership. This limits the ability of school leadership staff to become proactive agents of improvement in Serbian schools

4.2. Mandatory tasks deployed to schools in connection with self-evaluation and school development (quality management)

Self-evaluation is mandatory for schools, based on the same principles as external evaluation by pedagogical advisors, and assesses same areas and indicators in every area of quality (Rulebook on evaluation of the quality of work of the institution, *Službeni glasnik*, 10/2019). As part of the preparation for an external evaluation, the institution submits to the external team an evaluation of the school curriculum (i.e. the preschool program of the institution, the annual plan of work of the institution; the development plan of the institution; report on the work of the institution; self-evaluation report; reports on achievements in final examinations; reports of educational advisers and educational inspectors; and other documents with the data needed to prepare the quality evaluation) (Rulebook on evaluation of the quality of work of the institution, *Službeni glasnik*, 10/2019, article 16.). All this documentation is mandatory for schools, and the education system directs schools to produce these documents in order to manage the quality of their own work in a situation of a limited number of pedagogical advisors and the fact that external evaluation is not done frequently enough. School self-evaluation is undertaken each year in certain quality area(s) (e.g. ethos, teaching, and learning), while every four to five years self-evaluation has to cover all seven quality areas (the evaluated areas are all addressed over the course of 4-5 years), while external evaluation is usually carried out once every five years. The six quality areas that are assessed in self-evaluation and external evaluations for primary and secondary schools are: 1) Programming, planning and reporting; 2) Teaching and learning; 3) Student achievements; 4) Support for students; 5) Ethos; and, 6) School organization, management, human and material resources. For preschool institutions, those areas are: 1) Educational work; 2) Child and family support; 3) Professional learning community; and, 4) Management and organization (Rulebook on quality standards of work institutions, *Službeni glasnik*, 14/2018, article 1).

According to independent analyses, this comprehensive set of school quality standards that are development-oriented and draw upon the experience of long-established European inspection systems are a strong and good framework for self-evaluation.³⁹ Serbia introduced school quality standards for the first time in 2012 and by now all schools have undergone a first cycle of external evaluations and a

37 Ibid.

38 OECD (2014). TALIS 2013 Results: An International Perspective on Teaching and Learning, TALIS, Paris: OECD Publishing, Retrieved from: <https://dx.doi.org/10.1787/9789264196261-en>.

39 Maghnouj, S. et al. (2020). OECD Reviews of Evaluation and Assessment in Education: Serbia, OECD Reviews of Evaluation and Assessment in Education. Paris: OECD Publishing, Retrieved from: <https://doi.org/10.1787/225350d9-en>

new cycle will start in school year 2019/20. The new set of areas of quality adopted in 2018 was drawn up using a framework that was refined based on experience: seven areas for schools were merged into six areas of quality, and areas of quality for preschool education merged into four. The list of standards under the “teaching and learning” quality area has been condensed and descriptive indicators were added to ensure that teaching is at the centre of this approach. The language of the standards was also improved by specifying which actors’ behaviours or outcomes would be looked at for each indicator (e.g. teachers, school principals, or students, etc.).

4.3. The efficiency of self-evaluation-based school development procedures

According to key expert opinions, because of the lack of systemic investment (e.g. projects and capacity building) in school self-evaluation, this powerful improvement tool does not fulfil its potential in Serbian schools. It is usually formally applied. A handbook for school self-evaluation was created in 2005 with the support of British Council, while the system still awaits a new handbook for the new areas of quality of education and new standards within areas. In 2012, a manual for the self-evaluation for VET schools was published as a result of the IPA 2007 project Modernization of the System of Vocational Education. In 2013, a Manual for self-evaluation in preschool institutions was developed within the IMPRESS project within the EU IPA project (Improving preschool education in Serbia). The time delay in the production of important handbooks for self-evaluation could imply that schools have to some extent been abandoned in the process and that systems do not prioritize this area, or that the system does not have the capacity for the timely and efficient production of important materials and tools for school improvement.

One of the reasons for the under-used potential of self-evaluation is found by experts to be the fragmented governance arrangements for external school evaluation which weaken accountability and make self-evaluation a more formal and administrative process than an essential process for school improvement.⁴⁰

School self-evaluation teams should consist of at least five members, including: representatives of school professional bodies (that is, teachers), the parents’ council, student parliament, and institutional management. In reality, the self-evaluation team consists only of school employees headed by school pedagogues or the school psychologist. The participative nature of self-evaluation is thus ensured by involving the representatives of other key actors (students and parents) in the form of surveys or interviews. Self-evaluation is based on the analysis of: 1) records and pedagogical documentation of the institution, the education and upbringing program, annual work plan, and the development plan of the institution; 2) databases within a single education information system, and other data sources; 3) the results of monitoring various activities in the institution, and in particular, the observation of school lessons and activities in the preschool institution; 4) data collected from research conducted within the institution and at the level of the education and upbringing system and other relevant information; 5) the effects of implemented activities in projects; 6) interviews, expert discussions, meetings, the results of conducted surveys and other analytical research activities deemed necessary; and 7) pre-existing reports based on the evaluation of the quality of work of the institution (Rulebook on evaluation of the quality of institution, *Službeni glasnik*, 10/2019, article 7). The self-evaluation team collects, analyses, and processes data related to the subject of self-evaluation and evaluates the quality of self-evaluation items based on the data thus processed, which is the most prevailing technique, suggesting that schools

40 Ibid.

usually tend to do this the easier way, thus their expectations about self-evaluation could be better developed and nurtured by the system. The self-evaluation report contains a description and assessment of the quality standards of the institution, a proposal for measures to be taken to improve the quality of the institution's work, and the means of monitoring the achievement of proposed measures. The school principal submits the self-evaluation report to the teachers' council, the parents' council, and the institution's governing body. The principal is also responsible for finding the best way to make the self-evaluation report available to all interested parties. Some schools publish their self-evaluation reports on their web sites. Schools receive very little training on how to conduct self-evaluations. School principals and other staff lack training for school evaluation in their initial and in-service training. Schools receive no external guidance on how to carry out self-evaluations or about what indicators to use to assess and compare their performance. While the IEQE's Centre for Quality Assurance of Educational Institutions has a mandate to develop guidelines and tools for self-evaluation, it has not done so for almost a decade.⁴¹ According to representatives from the IEQE, this is because the centre's limited resources are dedicated almost entirely to supporting external school evaluation.

4.4. School-level change: school development planning and external professional support

The school development plan is an important instrument that should strengthen schools' abilities to independently plan, create, and evaluate their activities in order to fulfil goals that they have defined by themselves for the next five years. But, in practice, there is concern that schools often lack the capacity to use evaluation exercises to define and implement improvement plans on their own. For example, school principals in Serbia do not receive adequate training concerning how to fulfil their role as instructional leaders, while chronic underfunding means that many schools must rely on parents, non-governmental organisations, or the private sector to fund their school development plans.⁴² The results that are monitored in school development plans are not used for any kind of systematic appraisal, which makes them more of a formal requirement than an essential obligation for the school governors.

This leads to other difficulties. Some important steps that are embedded in these plans (such as schools availing themselves of the offers of various external professional support services – especially in-service training and consulting, etc.) that should respond to the needs generated by school development and the quality assurance demands – are seen more through the lens of the needs of individual teachers than the school as a whole system. School governance usually sees external support in terms of improving new or less competent teachers than as a means of externally supporting the school as a system or challenged-oriented approach. Here, the means of funding of additional school activities must be understood in order to more fully interpret why schools lack autonomy and freedom in realizing their school development plans – see Chapter 5 (i).

4.5. Summary of research and evaluation results on the quality of schools (strengths, weaknesses, problems)

The: impact of evaluation is hindered by several factors: – , the weak national capacity to provide constructive feedback and support to schools, and the limited understanding of schools how to do a meaningful self-evaluation.

41 Ibid.

42 Ibid.

In terms of external evaluation, there is a need to create a strong pool of educational advisors who can strengthen the integrity of the process. The governance arrangements for school evaluation are fragmented, which weakens accountability.

On the other hand, in spite of the fact that the creation of a national education strategy would foresee the gathering of valuable data and generating some capacity for policy evaluation, in practice results in these areas are vague. There are major gaps in terms of system evaluation tools and low human, technical and financial capacities for improving the monitoring of the system. In particular, the lack of a national assessment and weakly functioning education information systems limit the ability to conduct analysis and provide timely information about the performance of the education system. There is no culture of public reporting or even talk about PISA results (they are marginalised in news on television). There is no culture of information-sharing, which leads to low levels of public accountability and lost chances for development.

According to the almost all reports from IEQE's Centre for Quality Assurance of Educational Institutions,⁴³ teaching and learning (as areas of external evaluation) receive the lowest grades, while school ethos has usually been rated highest, ever since the beginning of the process of external evaluation. It is more important to emphasise the weakness of the process of external evaluation itself.

According to the major education system evaluation done by OECD,⁴⁴ there are several weaknesses in the external evaluation system. External evaluation has the difficult task of assessing school quality within the two days that evaluators spend in school due to the low number of external advisors. Schools are given a numerical score from one to four for each indicator, whereby four signals full achievement. The judgement of how a school performs in relation to a particular standard is then determined by averaging the indicator scores for that standard. This contributes to the school's overall score (grade). To receive an overall grade of '4' (very good), schools need to score at level 4 for more than 50% of the standards, and the rest must be awarded a score of level 3. In 2017, under the previous scoring system, 60% of the basic education schools that were evaluated received a score of '3' ('good school'), about a fifth (22%) received a score of '4' ('very good') while 2% received the lowest score of '1' ('very weak').⁴⁵ Reports usually do not include recommendations for improvement. This wrongly leads schools to focus on the overall grade than on an in-depth understanding of what is really not so good about their school. In practice, reports serve for the comparison of schools but not for the support of schools in terms of their development, which was the original intention. The process has become similar to the summative assessment of students – i.e. it does not serve formative purposes, as it should.

The reason for this is that the number of school advisors in Serbia is insufficient for undertaking all the tasks for which they are responsible. There are 100 advisors across the 17 Regional School Offices covering over 1,700 basic education and upper secondary schools. This shows the neglect of education by the government for a many years. Detailed reports about external evaluation are unclear concerning to what extent recommendations from these annual reports are used to inform policy development by the ministry.

43 <http://vrednovanje.ceo.edu.rs/>

44 Maghnouj, S. et al. (2020). OECD Reviews of Evaluation and Assessment in Education: Serbia, OECD Reviews of Evaluation and Assessment in Education. Paris: OECD Publishing, Retrieved from: <https://doi.org/10.1787/225350d9-en>

45 IEQE (2017). Report on the External Evaluation of the Quality of Work of Educational Institutions in the School Year 2016/2017. Belgrade: Institute for Education Quality and Evaluation

Next, the use of external school evaluation to inform in-school planning and external monitoring and accountability is limited, and the results of school self-evaluations are not systematically used to inform in-school practices. School self-evaluation is one of the sources of evidence used to inform external school evaluation results,⁴⁶ while the weakness of the self-evaluation process has already been elaborated.

5. GOVERNANCE ENVIRONMENT

5.1. Concise description of the structural skeleton of key functional governance subsystems: management, financing, content regulation (curricula and standards), quality evaluation (external school evaluation, regular assessment of student performance and examination, information system), and professional services.

Governance functions	Regulatory instruments	Mechanisms/instruments ensuring the application of regulatory instruments (examples)
Public management of education	<ul style="list-style-type: none"> The allocation of decision-making competencies among levels and actors: in recent years the system became highly centralized and schools lost their autonomy Mandatory consultative procedures with various stakeholders: parents and students formally and legally participate in the decision-making process through student parliaments and councils of parents, but in practice the political party selects principals, and in some cases even teachers Systems of mandatory mid-term planning Monitoring and reporting obligations 	Schools do not have any autonomy to create and adapt curricula; school autonomy is also decreased in terms of employment capabilities and in financing because politics have penetrated schools through the local self-governments and councils of parents; communication between the system and schools is undertaken through the rulebooks, the inspectorate, along with strict rules and direct messages about how to even informally adapt some rulebooks or regulations
Financing of education	<ul style="list-style-type: none"> Normative financial standards: there are norms about financing, slight increase in salary in line with years of work engagement Financial management regulations: completely centralized Incentives/disincentives: none available Financial instruments for generating demand for services: none available 	E.g. supplementary normative funding for schools earmarked for the purchase of professional services – this strongly depends on the relations between school principals and local self-government – in some cases there are huge investments in school infrastructure, in others school cannot fulfil their basic needs (even within the same municipality)
Curriculum policy (“content regulation”)	<ul style="list-style-type: none"> Process regulation (curricula): completely centralized – even the National Education Council has lost its power to influence the decision-making process Qualification systems: highly centralized by the Minister Outcome regulation (examination requirements, other performance standards): this issue is more under the control of IEQE but the Ministry has the final word 	The market for textbooks is under the control of a big German public publishing house, which receives a lot of support from the Ministry

46 MoESTD (2018). OECD Review of Evaluation and Assessment: Country Background Report for Serbia. Belgrade: Ministry of Education, Science and Technological Development

<p>Quality evaluation</p>	<ul style="list-style-type: none"> • Quality standards (for external school evaluation and self-evaluation): recently reformed, but without any true innovation • Assessment frameworks (for standardized assessment of student performance): no improvement • Regulations of public reporting and personal data protection: unclear 	<p>External evaluation is done rarely, and it is wrongly perceived as a normative process instead of a formative and supportive process</p>
<p>Management of human resources (separate part of management)</p>	<ul style="list-style-type: none"> • Labour law, special employment regulations in education: the aim of the recent policies is to decrease the number of teachers in the • Qualification requirements: there are a lot of deviations from procedures, especially in small municipalities • Regulations concerning individual performance evaluation: none • Remuneration standards and individual incentives: none • Regulations/standards about capacity building: teacher professional development industry has become extremely large (with more than 1000 types of training) due to the permissiveness of accreditation that enables anybody to sell their seminars, which creates numerous generally low-quality seminars from which schools cannot chose adequately. 	<p>Initial teacher education is under the control of university lobbies that are guided by private interests (concerning the desired number of students, and a desire to protect workplaces) and does not focus on quality</p>
<p>Professional services (for schools, directors, teachers, pupils and parents)</p>	<ul style="list-style-type: none"> • Service standards and protocols: none • Quality assurance learning standards (accreditation requirements): present only for faculties • Protocols for market oversight: none 	<p>E.g. protocols for the habitation-related development of various categories of SEN children, or accreditation requirements for in-service training programs</p>
<p>Initial training (of teachers and other professionals in HE)</p>	<ul style="list-style-type: none"> • Training and outcome requirements for initial teacher training • Quality assurance standards (institution and program accreditation requirements): standard procedure for all faculties 	<p>There is a teacher faculty in Serbia which produces teachers for lower grades –students in TIMSS after four grades have much better results than at the end of secondary education due to the existence of the teacher faculty for this education level</p>
<p>The regulation of the market of textbooks and other “content carriers”</p>	<ul style="list-style-type: none"> • Quality assurance standards: well developed • Protocols for market oversight none 	<p>The Institute for the Improvement of Education has a commission that accredits textbooks, but large companies influence the teachers who choose textbooks in multiple ways (e.g. free tablets for teachers who choose their textbooks, influencing principals, etc.)</p>
<p>The regulation of the market of instruments for teaching and learning</p>	<ul style="list-style-type: none"> • School equipment standards for schools: a depot of assisted technologies was recently established which should distribute such technologies to SEN students in primary schools • Quality assurance standards: none • Protocols for market oversight: none 	<p>Quality assurance standards for assistive technologies which are purchased according to the needs of students</p>

<p>Information system</p>	<ul style="list-style-type: none"> • Data collection, reporting and provision regulations: there have been some breakthroughs with transparency of educational data but some of these data were withdrawn from the public eye immediately • Regulations concerning the protection of personal data: not clear; public attention is not on this issue • Key indicators systems: not publicly available – there is a DevInfo database with national data, but educational data are not available 	<p>Lack of transparency about data and plans for it</p>
<p>R&D and knowledge management</p>	<ul style="list-style-type: none"> • Reporting protocols: no culture of reporting, only verbal self-glorification of the u8jnhuMinister 	<p>Lack of annual reporting obligations connected to regular observation-based research that are publicly available – some internal reporting is done by the Ministry</p>
<p>Other educational standards (e.g. school facilities and safety, public health, social, child protection, culture, etc.)</p>	<ul style="list-style-type: none"> • Connected standards and regulations: there are various protocols and rulebooks regarding children’s safety and wellbeing (from preventing child labour and providing safe conditions to dual education and rulebooks intended to prevent segregation and discrimination in schools) 	<p>E.g. protocols for the protection of children in danger</p>

5.2. Financial allocation in the Serbian educational system

In order to fully understand the financial allocation mechanisms in Serbian education system, it is important to understand the how local municipalities are financed from the level of the republic. According to the Law on Financing of Local Self-Governments, the main sources of income for local budgets are so-called own revenues (i.e. local taxes, a proportion of the gross salaries of inhabitants of a particular municipality) and revenues transferred from higher levels of government (usually at the level of the republic). The latter are so-called assigned revenues and transfers (non-earmarked and earmarked). Next to revenues, inflows of local budgets are so-called “Receipts,” which include income on the basis of borrowing and income based on the sale of the financial and non-financial assets of the local self-government. All this creates an opportunity for schools to obtain some local financing for specific need at the local level.

The most significant ceded revenue of local governments is the local tax. This tax is paid according to the place employee’s digestion. It belongs to all local governments, except the City of Belgrade where only 80% of the salary tax goes to Belgrade Region while while the remaining 20% belongs to the budget of the Republic. This creates a huge budget imbalance between rich and poor municipalities (this is the reason why Belgrade, as the richest area, has a lower percentage of local tax – in the City of Belgrade alone, this share amounts to 70% of the amount charged taxes). Cities and municipalities are entitled to transfers from the budget of the Republic, which can include: non-purpose transfers, which are determined on an annual basis on the basis of gross domestic product, and are distributed to all local governments (except for the City of Belgrade) according to the criteria established by law, and earmarked transfers, which are used to finance certain functions and expenses. Non-purpose transfers

are determined by the Law on Financing of Local Self-Government at the level of 1.7% of the country's gross domestic product.⁴⁷

All this is very important for understanding the autonomy of school financing in relation to the local level. Main expenses are covered from the central level (salaries of staff). There is a lot of freedom (but few actual financial resources) as regards financing schools and meeting their needs at the local level, but a poorer municipality that needs more investment in schooling usually depends on financing at the level of the republic. In the law, Non-assigned and assigned transfers are higher for more vulnerable municipalities in line with the categorisation of the municipality according to level of development, but political influence and centralisation of the political system in Serbia creates an atmosphere whereby making local decisions is rare or impossible.⁴⁸

Schools in Serbia have a low level of financial autonomy. They do not have the local freedom to manage their own budgets, but they have the opportunity to use local funding for specific purposes, if local self-governments allow such kinds of mini-projects. This is the key reason why is important to understand the nature of the funding of municipalities from the level of the republic. In practice, this leads to the situation that some municipalities and schools which have very good relations with central authorities receive a huge amount of funding, while some other schools and municipalities do not have enough resources to meet their basic needs (such as for heating and toilets, etc.).

Even if the laws have not been changed to decrease school decision-making competences, political centralisation is manifested through the fact that one political party has a big majority in all municipalities and at the level of the republic. Local self-governance is fully dependent on political decisions at the central level which reduces the opportunity for the development of school autonomy.

5.3. Types of learning outcomes emphasized by centrally issued curricula and standards.

The new curriculum includes didactic and methodological recommendations about student assessment. It distinguishes between formative and summative assessment, and underscores the desirability of teachers providing continuous feedback to students about their progress, based on an initial diagnostic evaluation of the student's level.

The IIE is developing a training programme for teachers related to the new curriculum with support from the European Union and the United Nations Children's Fund (UNICEF). The programme includes a three-day seminar to familiarise teachers with the new materials and approach to learning, which could be considered as not enough to facilitate such a big change. The IIE has also developed an e-learning platform with materials about the curriculum, such as examples of lesson plans, activities, and assessments. The IIE hopes to reach approximately 40,000 education professionals in primary and secondary education through this form of training by the end of 2019⁴⁹ but IIE does not have enough employees to provide quality support for the implementation of the new curriculum in educational institutions. It is still not clear whether the external evaluators at the regional school offices will have a mandate or the capacity to help schools.

47 Centre for applied European Studies(2019). Finansiranje lokalne samouprave u Srbiji i uticaj političke veze lokalne i republičke vlasti. Retrieved from: <https://www.cpes.org.rs/Downloads/Analize/Finansiranje%20lokalne%20samouprave.pdf>

48 Ibid.

49 European Commission (2016). From University to Employment: Higher Education Provision and Labour Market Needs In the Western Balkans Synthesis Report. Luxembourg: European Union. Retrieved from: <http://www.lse.ac.uk/business-andconsultancy/consulting/assets/documents/From-University-to-Employment.pdf>

Results from international assessments reveal that the average learning outcomes of students in lower secondary education (referred to in Serbia as the second cycle of primary education) have generally remained stable, with slight overall improvements since the country first participated in the 2006 cycle of the OECD Programme for International Student Assessment (PISA). Between 2006 and 2012, Serbia was one of the few countries in the Western Balkans region to improve average performance across all PISA domains – reading, mathematics, and science. The largest improvement during this period was in reading, where mean performance increased by 45 points, mostly from 2006 to 2009. In general, Serbia also decreased its share of low performers (students who score below Level 2 on the PISA scale) across all PISA domains since 2006. The overall decrease in the share of low performers was particularly significant in reading, from 51.7% in 2006 to 32.8% in 2009. However, results from PISA 2018 show a slight decrease in learning outcomes since 2012, especially in reading and science. Today, fifteen-year-old students in Serbia continue to score more than one year behind their peers in OECD countries across all subject domains, particularly in science (49 score point difference).

5.4. The analysis of the effectiveness of the existing professional accountability system - overview of concrete specific governance instruments with the potential of working as drivers for conveying external expectation to schools.

The Serbian educational system is highly centralised and accountability is developed through inspection, which has a different function than that of the pedagogical advisors in charge of external evaluation. Inspectors act when they receive reports about violations of regulations. The Law on Education Inspection (2018) foresees that education inspectors should visit schools to check that processes comply with the law. The mandatory period is once a year for regular visits; they also can make extraordinary visits (upon request). Schools are given an inspection report and need to comply with the recommendations. A follow-up visit is then usually organized. Inspectors visit schools at least once a year and check a list of documents requested from the school and all legal requirements (e.g. documents from school councils and professional bodies, such as the teacher council). Inspectors then provide school principals with the audit report, including the conclusions and measures that need to be implemented by schools within 15 days after the school visit if something is not according to the law. Inspectors can also carry out exceptional audits when problems are reported in a given school by teachers, parents, students, or school principals.

Accountability is thus not based on the results of external evaluation solely, but more on the inspectorate. However, being awarded the lowest mark for an external evaluation usually involves informal follow up activity by the system, which examines the responsibility of the school and school principal for the low quality of education.

The other issue is the low level of effectiveness of both mechanisms due to human-resource-related problems. The new law on inspections (audits) was changed in 2018 to streamline the process due to the limited number of inspectors. The new law also allows a municipality to call inspectors in from another municipality to join the audit team. In some cases, pedagogical advisors are even called on to join audits, which could create a double-bind situation and undermine the process of external evaluation (typically making it a more friendly and constructive critical overview about school functions than a potentially condemning process of inspection which seeks only to identify the violation of rules and responsibilities in usually serious cases of conflict and rule violation).

Crucially, there are no data with which to compare the effectiveness of schools or create an accountability system that could raise the effectiveness of the education system itself. The main tool for this is the results of the graduation exam conducted by the Institute for the Evaluation of the Quality of Education (IEQE), which compares the achievement of schools with other schools of a similar profile (e.g. similar municipality or similar socio-economic background of students). This process of comparison is still not possible for secondary education due to the absence of a graduation exam. Schools do not receive data about coverage, the dropout rate, or other important indicators except for achievement. The system used to create pedagogical added value in the form of a measure of school quality (indicating the position of a school in relation to a regression-based plot of school achievement and socio-economic background of the students of those schools), but a year later this data ceased being collected due to irregularities in the data sent in by schools. On the other hand, reports from external evaluations do not compare school quality in relation to the school context, and nor do they create comparative benchmarks by including schools in similar contexts or national averages.

This kind of accountability system creates several issues. First, external evaluation is done once every five years, meaning it is a relatively rare event, so it creates a lot of mimicry (compliance-based) behaviour during its relatively short duration. Schools are aware of the weak capacity of the system to undertake constant monitoring and provide more frequent and more informative feedback to schools. On the other hand, very strict rules, the inspectorate, and the centralized system that is strongly influenced by the ruling party (which influences the selections of school principals in the majority of schools) create fear and a lack of autonomy and creativity in the educational process. All this has created a very long period of stagnation of the Serbian educational system, looking at the related achievements in terms of international comparison over the last ten years.

6. COVID-19 EDUCATION RESPONSE

Higher education institutions and secondary and primary schools that have the appropriate equipment and means for organizing distance learning continued their educational work by conducting distance learning. Other institutions organized distance learning through the national RTS 3 television channel, the RTS Planet platform, as well as internet learning platforms. Through new information and communication online platforms (<https://www.mojauconica.gov.rs/>), a pilot test for the graduation exam at the end of primary education was organized.

In addition to the content that will be prepared for broadcasting on RTS Channel 3 and the RTS Planet platform, the ministry recommended to primary and secondary school teachers (general education and vocational subjects) that, since they know their students best, they should use the available digital textbooks and content in a way that enables distance learning. The ministry also pointed out the possibility for adapting existing teaching materials and presentations with learning instructions so that they are available to the largest number of students (via e-mail and Viber group, etc.).⁵⁰

50 <http://www.mpn.gov.rs/operativni-plan-za-nastavak-rada-skola-u-otezanim-uslovima-uz-program-ucenja-na-daljiju-za-ucenike-osnovnih-i-srednjih-skola/>

Coverage with online learning. Official data from the Ministry of Education, Science and Technological Development (MoESTD) (Minister of Education, media appearance) suggest that 66,000 students participated in an online platform for online testing in the form of a pilot for the small graduation exam. Official data indicate that in the eighth grade in Serbia, 65,871⁵¹ students are enrolled, meaning that, according to the Minister, all students participated in this online testing. The ministry also reported similarly great coverage in secondary schools.

There are no official publicly available data about how many children did not have access to online or TV learning. CEP data about Pestalozzi project ('Together in Transition') primary schools in vulnerable municipalities showed that 314 students from ten schools (5,148 students) in total (6%) were delivered school materials in paper form due to their inability to access online materials (lack of electricity, no device for accessing online learning) while for 152 students (3%) schools were unable to provide them with paper documents due to problems in reaching them, or their absence (probably due to migration and prolonged absenteeism). In ten secondary schools, the situation is better – around 2% of students were provided with paper-based materials, while 2.6% of students remained out of contact during the pandemic.

Results from a big research project which included almost every school in the Republic of Serbia undertaken by the Institute of Psychology supported by UNICEF showed that 0.7% of primary schools were not included in distance learning, while 1% of students were not included from secondary schools. Special schools had lower coverage – around 7% of students were not included in distance learning from those schools.

From the total Roma population in primary schools, according to the data from this research, 27% of Roma children were not included in distance learning, and nor were 19.6% of students with disabilities and 12.1% of students from other vulnerable groups. In secondary schools, 16% of the total Roma population were not included in distance learning, and 9.7% of students with disabilities, and 7.3% of students from other vulnerable groups.

Results from same research showed that in primary schools 1.6% of students were included in alternative processes of distance learning (e.g. working with paper materials delivered to their homes) in primary schools and 1.7% in secondary schools. Around 28% of students from special schools were included in this type of distance learning. Students who were included in this type of alternative distance learning are mainly Roma students, students with disabilities, or students from other vulnerable groups. Around 6% of families of primary school students received psychosocial support from employees of the institution. Support was provided to 25% of Roma families, and a similar share of families of students with disabilities, while this type of support is somewhat less often provided to students from other vulnerable social groups.

Support for SEN students. The ministry provided guidelines that say that for students who need a structured individualized approach to work – i.e. individualisation within the individual educational plan (IEP), IEP-1, IEP-2 and IEP-3 – it is necessary for teachers to prepare special learning materials and make them available to students, as agreed with their parents. When the internet is not available to all students, it is the obligation of the principal and class teachers to regularly publish in a place that is directly accessible to students and parents (e.g. at the school entrance, on an outdoor board) the schedule of classes that will be broadcast on RTS Channel 3. Class schedules can also be forwarded via

51 <https://publikacije.stat.gov.rs/G2020/Pdf/G20201073.pdf>

SMS messages and social networks (Viber group, etc.) to all students. Digitalna Srbija provided tablets for 400 students who did not have access to the internet. There was no special support system for SEN students – the instructions were that schools should agree individually with every parent.

There were no specific instructions regarding how to deal with special educational needs students, expect for a general recommendation by the Ministry that the approach should be strictly individualised and agreed with every single parent.

Directors of schools, teachers' councils, and pedagogical boards are obliged to start drafting a weekly operational plan without delay with key activities for implementing educational work. The aim of this planning is to ensure the greatest possible involvement of students in different types of learning, and the coordinated work of teachers in the preparation of educational materials for students and monitoring of the daily workload of students in accordance with their age. Class teachers should have a special role in monitoring the daily and weekly workload of students, because – based on the insights into the weekly work plans – they will be able to influence changes if it is estimated that students are too busy. School principals are obliged to regularly submit weekly operational plans to the competent school administration of the Ministry

Support for teachers. There was no kind of support system organized for teachers, but teachers were provided with guidelines concerning how they should react. The ministry pointed out that primary and secondary school teachers and students have at their disposal a large number of online platforms (e.g. Viber, Zoom, Microsoft Teams), as well as the national online learning platform *Moja škola*. By using them, teachers and students were able to interact and exchange materials to master program content. Instructions and pedagogical recommendations for the use of these platforms were available from March 17 on the website www.rasporednastave.gov.rs and their use is free. Appropriate instructions were posted on the official website of the Ministry, as well as notifications about the dates related to the beginning of their functioning. The Ministry urged, for the purpose of supporting students' learning, that information should be exchanged between teachers at school and between schools in order to make the best content available to students (educational websites, digital content provided by schools, private websites, and other things that contribute to achieving goals and tasks).

Assessment. According to the guidelines of the Ministry, based on the materials that teachers provide to students and based on student feedback after watching TV lessons (classes) and other educational content, it is necessary for teachers to record data on student progress that is made through different types of exchanges (homework, structured exercises and checks, essays, projects, presentations, drawings, etc.). Students can submit their work and homework to teachers via e-mail (pictures, files) or through using the selected online platform. Based on feedback from students, and through the horizontal professional exchange of plans and experiences, teachers should take into account the daily workload of students and maintain the required level of motivation to learn, which is achieved by good forms of formative monitoring. Upon the normalization of conditions and return to classrooms, all quality formative assessments and insights of teachers can be incorporated into summative assessments at the end of the school year.

Graduation exams. Pilot testing for graduation exams was held in the following way: tests were made available to students from 8 a.m. to 8 p.m., so they could take them at a time when technical or other organizational or family conditions allowed. Through the platform mojaucionica.gov.rs and the account forwarded to them by the class teacher, students completed the tests. At the beginning of each test, the student chose the language in which the test would be undertaken. Each student was

able to take the test only once, with a time limit, which meant that when a student started taking a test, they should complete it within the deadline assigned for the work. At the beginning of the test, students were notified of the length of the test. The final graduation exam will be held partly in school and partly at home. In school, students will take the maths test with a limit of nine students present in one classroom.

CONCLUSION

The Serbian educational system is highly centralised with various instruments for monitoring school quality and climate (e.g. external evaluation, and an inspectorate) but with weak capacity for the proper monitoring of implementation (due to the small number of employees). Schools have a very low level of autonomy, both fiscal and educational – curricula are centralised. Teachers often report that they feel controlled and that they have to fulfil strict rules and keep to a prescribed curriculum. The education system in Serbia is also a highly centralised system in terms of governance, because the education minister can hire and fire school principals. The ruling political party has a strong influence on school employment and principal selection. Previous forms of decentralisation of the system, with the strong influence of the local self-governments, were weakened due to the change in the political situation and strong unity among parents, teachers, and local-self-government representatives on school boards. This system was also prone to the influence of politics on the state level, but when the political situation led to the situation that one political party won the majority of the votes, the former became more visible.

The main challenges the education system should overcome are: 1) equipping students with the relevant competencies for the future (low PISA results); 2) stagnation in the education system that has lasted almost two decades, as is visible through international testing; 3) overcoming the authoritarian atmosphere in society and the lack of dialogue and pluralism which transfer to the school climate; and 4) the increase in inequity in education that is caused by very high social inequity and leads to the emergence of schools for “good” and not so “good” students (the highest level in Europe, according to the latest SILC data and S80/S20 indicator).⁵²

Very weak human capacities in the Ministry (both in terms of competences and number of people), in regional school offices (mainly in terms of the low number of employees) and in the number of Inspectorates creates opportunistic behaviour among the majority of schools. Schools are aware of the system’s low capacity to implement constant monitoring and to provide more frequent and more informative feedback to schools. On the other hand, very strict rules, a centralised curriculum, the power of the inspectorate, and a centralized system with the strong influence of the ruling party which influences the selections of school principals in the majority of schools creates fear and decreases autonomy and creativity during the educational process. Administration is still a key responsibility of teachers because inspections usually involve checking documentation. This is something we call “administration mimicry,” which has produced an idiom that can be frequently heard in schools: “pens may blot, but they cannot blush” (in Serbian: *papir trpi sve*). All this has created the very long period

52 Krstić, G. (2016). Why Income Inequality Is So High In Serbia: Empirical Evidence and a Measurement of the Key Factors, *Economic Annals*, 61(210), 23-46.

of stagnation of the Serbian educational system, looking at international achievements in the last ten years. There is no discussion of the low performance of Serbian students on PISA in comparison to neighbouring countries, and nor is anybody presently thinking about reforms that could improve the educational process and teaching and learning – e.g. establishing a faculty for teachers in higher grades and secondary schools, curriculum reforms, teacher development, etc. It seems that addressing the most subtle and challenging pedagogical and psychological processes of teaching and learning are far beyond the agenda of the present ministry.

Due to the high degree of centralisation, schools have lost their ability to adapt to future challenges. Schools are not in a position to adapt or reconsider their programs to more strongly personalize teaching and learning; they are not able to diversify how learning is organized; they are not able to accumulate those institutional professional capacities that would be required for the individual development of pupils; and they have lost their ability to cooperate with key out-of-school actors in relation to the individual learning environment of pupils.

Foreign donations are typically not directed towards improving initial teacher education and raising the quality of teaching, but are aimed at fostering inclusion, migrant education, and dropout prevention. This has created the narrative that Serbian education system has been left alone to improve its quality, and also generated some kind of implicit resistance towards equity-related topics. Some products of curriculum reform projects are now *ad acta* (e.g. “Razvionica”).

The high level of centralization of the educational system is claimed to have created the excellent response to the COVID situation – keeping in mind the theory of governance which describes authoritarian governance as the most effective type in times of crisis.⁵³ The public appearances of the education minister frequently served to discipline both students and teachers. Online teaching and TV-based school started after only a few days due to suboptimal organization and the fact that some top-level officials of the Ministry were infected and faced very serious health problems. However, in a short period of time, online teaching worked and the actors in the educational system learned that they were capable of dealing with a very difficult situation. Teachers reported that they felt highly controlled through administrative procedures when working from home, and that they felt overwhelmed with expectations and tasks.

The digitalisation of schools is one of the most important aspects of the work of the ministry and has produced some results. The research community and academia – as far as is known – still cannot use the data from the ministry, or there have not been projects that aimed at improving the adaptability of the system through new research analysis and new policy recommendations based on the new information system.

One of the most important issues is public reporting, which could foster the democratic process in Serbian educational system, and also include a greater number of experts into the process of creating new or adapting existing policy measures. Public reporting usually corresponds to the level of public dialogue, which in Serbia disappeared long ago due to the polarised political situation. Public reporting about progress in relation to national goals should hold the government and the ministry accountable – in reality, there is oral reporting about goals and their fulfilment which does not correspond to the data that the academic community collects and monitors. Other institutions such as parliamentary committees and the research community should play a vital role in this reporting. In many OECD countries, such reports are now complemented by open access to data.

53 Kisak, P. (2016). *The Many Types of Government: From Chaos to Control*. CreateSpace Independent Publishing Platform.

REFERENCES

- Baćević, J. (2006). Antropološka analiza uvođenja usmerenog obrazovanja u SFRJ. *Antropologija* 1(1), 104-126, Retrieved from http://www.anthroserbia.org/Content/PDF/Articles/bacevic_usmereno_obrazovanje_u_SFRJ.pdf
- Cvejić, S. (2010). *Socijalna isključenost u ruralnim oblastima Srbije*. Beograd: UNDP.
- Commissioner for Protection of Equality in the Republic of Serbia (2016). *Public Opinion Survey Report: "Citizens' Attitudes towards Discrimination in Serbia"*. Belgrade. Retrieved from: <http://ravnopravnost.gov.rs/en/public-opinion-survey-report-citizens-attitudes-towards-discrimination-in-serbia/>
- CESID (2016). *Istraživanje o pokretačima radikalizma i nasilnog ekstremizma među mladima u Srbiji* (2016). Beograd: CESID, UNDP.
- Čaprić, G. & Videnović, M. (2020). *PISA 2018 izveštaj za Srbiju*. Beograd: Ministarstvo prosvete, nauke i tehnološkog razvoja.
- European Commission (2016). *From University to Employment: Higher Education Provision and Labour Market Needs In the Western Balkans Synthesis Report*, Luxembourg: European Union, Retrieved from: <http://www.lse.ac.uk/business-andconsultancy/consulting/assets/documents/From-University-to-Employment.pdf>
- Hattie, J.D. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge: London
- Hebib, E. & Spasenović, V. (2011). Školski sistem Srbije: stanje i pravci razvoja. *Pedagogija*, 3 (11).
- IPSOS, UNICEF (2016). *Analysis of the quality of education in schools and classes for students with disabilities*, Belgrade: UNICEF.
- Institute for Education Quality and Evaluation (2017). *Report on the External Evaluation of the Quality of Work of Educational Institutions in the School Year 2016/2017*, Belgrade: Institute for Education Quality and Evaluation.
- Institute for Public Health (2019). *The Report about Health of Children of The School Age in The Republic of Serbia*. Belgrade: Institute for Public Health, Retrieved from: <http://www.batut.org.rs/download/novosti/RezultatiIstrazivanjaPonasanjaDeceSkolskogUzrasta.pdf>
- Kisak, P. (2016). *The Many Types of Government: From Chaos to Control*. CreateSpace Independent Publishing Platform.

- Krstić, G. (2016). Why Income Inequality Is So High In Serbia: Empirical Evidence and a Measurement of the Key Factors, *Economic Annals*, Faculty of Economics, University of Belgrade, 61(210), 23-46.
- Lazarević, Lj., Orlić, A. (2018). PISA 2012 mathematics literacy in Serbia: A multilevel analysis of students and schools, *Psihologija*, 51(4)
- Maghnouj, S. et al. (2020). *OECD Reviews of Evaluation and Assessment in Education: Serbia*, OECD Reviews of Evaluation and Assessment in Education, Paris: OECD Publishing Retrieved from: <https://doi.org/10.1787/225350d9-en>.
- Ministry of Education, Science and Technological Development (2018). *OECD Review of Evaluation and Assessment: Country Background Report for Serbia*, Belgrade: Ministry of Education, Science and Technological Development.
- OECD (2013). *PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices*, PISA, Paris: OECD Publishing, Retrieved from: <https://dx.doi.org/10.1787/9789264201156-en>.
- OECD (2019). *PISA 2018 Results (Volume II): Where All Students Can Succeed*. Paris: OECD Publishing, Retrieved from: <https://doi.org/10.1787/b5fd1b8f-en>.
- OECD (2013). *PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices*, PISA, OECD Publishing, Paris, Retrieved from: <https://dx.doi.org/10.1787/9789264201156-en>.
- OECD (2014). *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS. Paris: OECD Publishing. Retrieved from: <https://dx.doi.org/10.1787/9789264196261-en>.
- Pešikan, A. and I. Ivić (2016). The Sources of Inequity in the Education System of Serbia and How to Combat Them. *Center for Educational Policy Studies Journal*, 6(2). 101-124
- Pešikan, A. (2015). *Cross-sectorial Cooperation-focused Solutions for Preventing Dropout*. Belgrade: Tempus Public Foundation, Retrieved from: http://oktataskepzes.tka.hu/content/documents/CroCooS/Country_Report_Serbia.pdf
- Radišić, J., Baucal, A. & Jovanović, V. (2015). Contribution of SES to Student Achievement at PISA: 2003-2012, *ECER 2015*, Budapest, Hungary, 7-11.9.2015
- Rašević, M. (2016). *Migracije i razvoj u Srbiji*. Beograd: UNDP. Retrieved from : <https://serbia.iom.int/sites/default/files/publications/documents/Migracije%20i%20razvoj%20u%20Srbiji.pdf>
- Šušar, S. (1977). *Škola i tvornica: u susret reformi odgoja i obrazovanja*. Zagreb: Školska knjiga
- The Human Right Watch (2006). *A Decade of Disappointment: Continuing Obstacles to the Reintegration of Serb Returnees*. The Human Right Watch. Retrieved from: <https://www.hrw.org/report/2006/09/04/croatia-decade-disappointment/continuing-obstacles-reintegration-serb-returnees>
- The Institute for Evaluation of the Quality of Education (2019). *The Report about External evaluation (2017/18)*. Belgrade: The Institute for Evaluation of the Quality of Education. Retrieved from: http://vrednovanje.ceo.edu.rs/sites/default/files/izvestajiEE/Izvestaj_skolska_2017-2018.pdf

UNICEF (2017). *Situaciona analiza: Položaj dece sa smetnjama u razvoju i invaliditetom u Republici Srbiji*. Beograd: UNICEF. Retrieved from: <https://www.unicef.org/serbia/media/2631/file/SitAn%20polo%C5%BEaj%20dece%20sa%20smetnjama%20u%20razvoju%20i%20invaliditetom%20u%20Srbiji.pdf>

UNICEF (2019). *Situation analysis of Children and Adolescent in Serbia*. Belgrade UNICEF. Retrieved from: https://www.unicef.org/serbia/media/13466/file/SitAn_publication_2019.pdf