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Revija Centra za študij edukacijskih strategij

The CEPS Journal is an open-access, peer-reviewed journal devoted to publishing research papers in different fields of education, including scientific.

Aims & Scope

The CEPS Journal is an international peer-reviewed journal with an international board. It publishes original empirical and theoretical studies from a wide variety of academic disciplines related to the field of Teacher Education and Educational Sciences; in particular, it will support comparative studies in the field. Regional context is stressed but the journal remains open to researchers and contributors across all European countries and worldwide. There are four issues per year, two in English and two in Slovenian (with English abstracts). Issues are focused on specific areas but there is also space for non-focused articles and book reviews.

About the Publisher

The University of Ljubljana is one of the largest universities in the region (see www.uni-lj.si) and its Faculty of Education (see www.pef.uni-lj.si), established in 1947, has the leading role in teacher education and education sciences in Slovenia. It is well positioned in regional and European cooperation programmes in teaching and research. A publishing unit oversees the dissemination of research results and informs the interested public about new trends in the broad area of teacher education and education sciences; to date, numerous monographs and publications have been published, not just in Slovenian but also in English.

In 2001, the Centre for Educational Policy Studies (CEPS; see <http://ceps.pef.uni-lj.si>) was established within the Faculty of Education to build upon experience acquired in the broad reform of the national educational system during the period of social

transition in the 1990s, to upgrade expertise and to strengthen international cooperation. CEPS has established a number of fruitful contacts, both in the region – particularly with similar institutions in the countries of the Western Balkans – and with interested partners in EU member states and worldwide.

Revija Centra za študij edukacijskih strategij je mednarodno recenzirana revija, z mednarodnim uredniškim odborom in s prostim dostopom. Namenjena je objavljanju člankov s področja izobraževanja učiteljev in edukacijskih ved.

Cilji in namen

Revija je namenjena obravnavanju naslednjih področij: poučevanje, učenje, vzgoja in izobraževanje, socialna pedagogika, specialna in rehabilitacijska pedagogika, predšolska pedagogika, edukacijske politike, supervizija, poučevanje slovenskega jezika in književnosti, poučevanje matematike, računalništva, naravoslovja in tehnike, poučevanje družboslovja in humanistike, poučevanje na področju umetnosti, visokošolsko izobraževanje in izobraževanje odraslih. Poseben poudarek bo namenjen izobraževanju učiteljev in spodbujanju njihovega profesionalnega razvoja.

V reviji so objavljeni znanstveni prispevki, in sicer teoretični prispevki in prispevki, v katerih so predstavljeni rezultati kvantitativnih in kvalitativnih empiričnih raziskav. Še posebej poudarjen je pomen komparativnih raziskav.

Revija izide štirikrat letno. Dve številki sta v angleškem jeziku, dve v slovenskem. Prispevki v slovenskem jeziku imajo angleški povzetek. Številke so tematsko opredeljene, v njih pa je prostor tudi za netematske prispevke in predstavitev ter recenzije novih publikacij.

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Editorial

In line with CEPS Journal conception and structure, we invited authors to focus on **Achievements (TIMSS, PISA) in International Research in Central and Eastern Europe**. In our invitation, we stated that we would particularly like contributions to shed light on:

- thematisation of internationally comparable research: theoretical backgrounds and methodological questions, the achievements of individual countries and national responses to these achievements,
- regional comparisons of results and comparisons of selected countries within the region with the achievements of countries outside Central and Eastern Europe,
- discussion of individual areas (equality, gender, mathematical achievements, etc.) in the light of national and regional comparisons,
- in consultation with the editors of the issue it is also possible to select other approaches to the theme.

As the result of our invitation, we have in front of us six articles discussing different aspects of achievements, mainly in PISA. Five of them focus on the results achieved in countries of Central and Eastern Europe, while one, due to a special invitation from the editors, discusses the Finnish march to becoming the best performing European nation in PISA. With this combination of nations from Central and Eastern Europe and Finland we embrace the two main ideas of the present CEPS Journal issue. On the one hand, we provide the ground for a thorough discussion of national and regional results in international educational attainment research. In so doing, we wanted to gather reflections that usually remain within the national sphere and present them on a regional level, thus offering our readers an insight into the state of the art in one of the important indicators of the quality of education in the region. On the other hand, we hope that in the idea of comparison readers and experts from the region will find stimulus to explore other topics and countries in the future (also in the CEPS Journal). We do not deny our aim, particularly by including Finland in the discussion, of stimulating the ambition of educators and policy makers in the region to strive for more – to achieve better results than the those of the past decade.

We believe that the articles briefly presented in this editorial can serve as solid ground for further elaborated reconsiderations of comparative research, both within the region and further afield. Comparison is far from being an educational panacea; however, it does offer numerous opportunities for research,

insight and reflection about more just and efficient education in the present and future.

Six articles in the **Focus** start with the paper discussing *Regional Educational Performance Patterns in Europe*. Péter Radó (an expert from Hungary) presents European educational performance profiles, claiming their relevance for education policy. Analysing PISA results within the conceptual frameworks of participation, quality of learning outcomes and equity of learning outcomes, the author proposes three European performance patterns: “the compensative education systems of North and Northwest Europe, the selective education systems of Central Europe and the attritional education systems of Southeast Europe.” On such a background, he provides an outline of major trends within the Central and Southeast Europe regions, offering reflections on the possible alignment of education policies in order to better fit the distinct context of the two regions, and proposing a conceptual framework for further comparative research of regional patterns in education.

In their article *Immigrant Students’ Achievements in Croatia, Serbia and Slovenia in Context*, Iztok Šori, Nika Šušterič and Slavko Gaber claim that achievement gaps between immigrant and native students indicate a failure to assure educational equity. Data demonstrate such a failure in the majority of countries assessed by the Programme for International Student Assessment in 2009 (PISA 2009). The authors discuss the reasons for the obvious inequity in education across OECD countries and other PISA countries and reflect upon how to succeed in addressing the migrant-native student attainment gap. While it may appear that in Europe the line of division matches that of old and new democracies, the authors demonstrate that such an explanation is not valid. During further contextualisation of the achievement results, the analysis also seeks explanations beyond the common education system explanatory model. The article focuses particularly on results from Croatia, Serbia and Slovenia, demonstrating the importance of language distance between native and immigrant environments and identifying immigration regimes as important factors in creating the achievement difference between native and immigrant students. Evidence shows that immigrant students score worse in countries with guest worker immigration than in countries with the large scale forced immigration of people of the same ethnic (linguistic) origin.

In their paper *The Big Improvement in PISA 2009 Reading Achievements in Serbia: Improvement of the Quality of Education or Something Else*, Dragica Pavlović Babić and Aleksandar Baucal discuss reading literacy among Serbian 15-year-olds by making a comparison with other selected countries and their scores in the 2006 and 2009 PISA studies. They also provide a detailed analysis

of the 15-year-olds' reading scores in terms of the share of students who attain individual levels of reading literacy by reading profile or individual reading aspects, and by the form of the text read. The authors observe progress in reading literacy among 15-year-olds in Serbia when comparing their scores in the 2006 and 2009 PISA studies. They identify the main reason for this in the decrease in the share of poor readers (i.e., readers who do not reach Level 2); in addition, they critically establish that it is easier to achieve progress among poor readers than among good readers or those who reach the highest reading levels (i.e., Levels 5 and 6). In fact, the PISA 2009 results do not confirm such an upward shift. Serbian secondary school students are also relatively more successful in identifying and selecting information in texts than in reflecting on and evaluating the texts read. Based on the findings obtained, the authors conclude that the reading progress of Serbian secondary school students depends primarily on the general social context, and less on changes in schools. In the future, it will be necessary to introduce modern teaching and learning methods in schools, such as active learning and research-based learning, which the authors believe would contribute to children's general cognitive development and to a greater transfer in competence learning, thus providing more opportunities for the more complete reading comprehension of texts (including more demanding texts) at higher levels.

Saša Milić's paper "*Montenegro in the PISA Study*" is a detailed analysis of the reading scores of Montenegrin secondary school students in the 2009 PISA study. The author observes that in 2009 the 15-year-olds' scores in all three assessment areas were somewhat lower than in 2006. He finds that the scores were significantly lower than the OECD average, and that 15-year-olds in all of the EU countries included performed better than the Montenegrin students. The reading literacy results are especially alarming because the decrease among the Montenegrin students is the greatest in relative terms, and due to the fact that reading literacy is a particularly important factor in academic performance. The analysis of factors influencing students' reading scores shows great differences among Montenegrin 15-year-olds in terms of whether they enjoy reading or not, the time they dedicate to reading, their awareness of the importance of developing effective reading strategies, as well as family environmental factors, such as parental education, the number of books in the home, cultural capital, the students' immigration status, and the age at which they first started attending preschool. Based on the findings obtained, the author analyses the potential reasons for the poor reading scores of Montenegrin students in greater detail. He highlights the fact that the 2009 PISA scores cannot provide a general quality assessment of the school reform that was introduced in Montenegro in 2001

and gradually implemented in schools from 2004/5 to 2006/7, because he believes this involves several subtle factors that must be identified and changed in order to provide a higher quality of knowledge in schools. Among the critical factors, he especially emphasises the insufficient quality of teacher education, especially in connection with process-target planning, grading that only exceptionally includes standardised tests, the inclusion of children with special needs despite inadequate professional support provided to schools, a professionally unsuitable strategy for teaching gifted children, and low shares of children attending preschool (in both the 1-3 and 3-6 age groups).

In his article entitled *A Case Study of Albania's Participation in PISA 2009*, Alfons Harizaj, an expert from Albania, presents Albania's results in PISA 2009. One of the main theses of the paper is that Albania made a significant step forward, in particular in the reading results of their students. To demonstrate his claim, the author compares the results of the Albanian students in 2009 with the results in 2000, when Albania also took part in PISA with the focus on reading. In the intervening period, major educational reforms were undertaken in Albania, and the author implicitly attributes the better results to the respective reforms. In the paper, the Albanian results are also compared with those of other countries participating in PISA, and with the results of other countries from the Albanian region. Finally, the author claims that the results give "a real view of the situation; they show us how effective the progress and our education policies are".

In his paper *PISA in Finland: An Educational miracle or an obstacle to change?* Pasi Sahlberg, an expert from Finland, discusses the role and impact of PISA results in Finland. The article starts by delineating PISA and TIMSS assessment. At the core of the paper is reflection on the ways in which education reforms since the 1970s have led to the Finnish PISA success. While praising PISA for its comparative insights into education, the author points out that, at least for Finland, PISA has slowed down the process of the continuous renewal of their education system. His conclusion is that "policy makers and media need to make better use of the rich data that have been collected, together with information about students' academic performance".

In the present edition, the **Varia** section of the CEPS Journal offers an article that focuses on teachers' emotional expression in the classroom. In the article, entitled *Teachers' Emotional Expression in Interaction with Students of Different Ages*, three Slovenian experts, Simona Prosen, Helena Smrtnik Vitulic and Olga Poljšak Škraban, present research in which teachers' emotions were observed by students of primary education during their practical work experience. The researchers' purpose was to establish which emotions were expressed

by teachers in their interactions with students, the triggering situations of the two most frequent emotions, and their level of intensity and suitability. Students used a scheme constructed for observing different aspects of emotions. The results show that primary school teachers express various pleasant and unpleasant emotions, with unpleasant emotions prevailing. The average frequency of teachers' expression of emotion decreases from grades one to five. Anger is the most frequently expressed emotion, followed by joy. Teachers' joy and anger are triggered in different situations: joy predominantly in situations of students' academic achievement and anger predominantly when students lacked discipline.

In the third section, there are **Reviews** of two monographs and one individual author's book. The first monograph is *Parent participation in the life of schools in South East Europe* (2011) (Kovacs-Cerovic, T., Vizek-Vidovic, V. and Powell, S., Ljubljana: CEPS, ISBN 978-961-253-063-1); and the second is *The Routledge Education Studies Reader* (2010) (Arthur, J. and Davies, I. (Eds.). New York: Routledge, ISBN 978-041-548-236-3). The individual author's book is the latest work by Pasi Sahlberg: *Finnish Lessons: What Can the World Learn from Educational Change in Finland?* (2011). New York: Teachers College Press, ISBN 978-080-775-257-9.

SLAVKO GABER AND LJUBICA MARJANOVIČ UMEK

Regional Educational Performance Patterns in Europe

PÉTER RADÓ¹

≈ The paper aims to contribute to the assessment of the contextual relevance of various educational policies through an analysis of three aspects of the performance profiles of European countries: participation, the quality of learning outcomes and the equity of learning outcomes. Comparative analysis of international student achievement assessment surveys and statistical data reveals three European performance patterns: the compensative education systems of North and Northwest Europe, the selective education systems of Central Europe and the attritional education systems of Southeast Europe. On the basis of the identified performance patterns, the paper provides a brief outline of major trends within the Central and Southeast European regions, shares reflections on the alignment of policies that fit the distinct context of the two regions and offers a conceptual framework for further comparative research.

Keywords: Central Europe, PISA, South Eastern Europe, Trends

The historical regions of Europe

Since no education system can be good or bad in comparison to itself, the only reliable way to assess the actual performance of the education of a country is international comparison. However, it happens too often that we compare the outcomes of our system with those of other countries with rather limited relevance. The further we go for international references, the greater the contextual differences that may reduce the validity of comparisons. Therefore, digging deeper into the contextual similarities and differences requires determining the group of countries that may serve as the basis of valid comparisons.

After the collapse of the Soviet Union, Eastern European communist systems and the former Yugoslavia, our approach to regional division within Europe remained very much determined by political categories. We often talked

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– and still talk – about the former communist countries and the countries of the former Yugoslavia where the “common heritage” determines all aspects of life, as well as the latitude for any development. However, all sorts of economic and social changes make this approach more and more dubious; in most aspects, Estonia appears to be more similar to Sweden than to Russia, and Slovenia is more similar to Austria than to Serbia. Gradually, the “historical regions of Europe” that – as the Hungarian historian Jenő Szűcs demonstrated – developed their distinct characteristics through centuries of “structural changes” are reclaiming their explanatory power (Szűcs, 1983).

Obviously, explaining social processes on the basis of common communist heritage is not a promising exercise anymore. Bulgaria and Romania are adjusting to the rest of the Southeast European region. Also, as the northern ex-communist countries are applying Northern European type of institutions and the differences between Austria, the Czech Republic and Hungary are fading, Central Europe is recovering its shape. The reaggregation of the Southeast and Central European regions is very much visible in countries where the “borders” of the two larger European regions represent internal regional differences, such as in Croatia and Romania. (This shift in approach raises an extremely exciting question for international comparative research of education: how strong are these social and cultural determinations and to what extent do they constrain the latitude of public policies?) The question to be answered by the present paper is: are there regional patterns in education, too? If so, what are their major characteristics?

When the results of the 2000 PISA survey were published, the decline in the average performance of European countries along the North – Southeast axis was already visible. Ever since, in spite of sometimes even drastic positive or negative change in the performance of certain countries, the three regional performance groups have intractably survived: North and Northwest European countries with above OECD average performance (with which Poland had caught up by 2006), Central European countries below the OECD average and Southeast European countries well below the OECD average. Although the position of a few countries within their respective regional group has changed, the integrity of the performance groups abides.

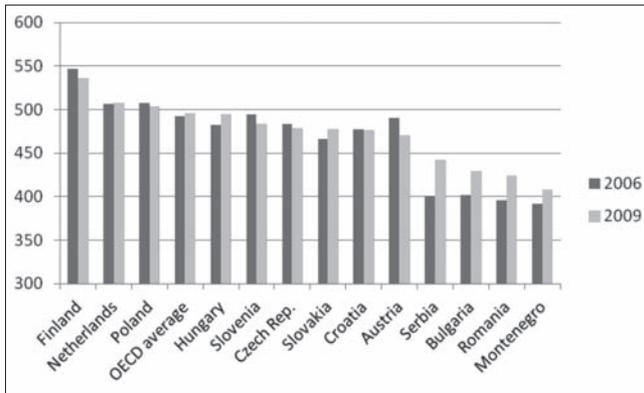


Figure 1: Average reading performance of students in selected European countries. (PISA 2006-2009)²

Still, to a certain extent these overall regional performance patterns can be explained by the different wealth of the various countries. As the report on the PISA 2009 results suggests, there is a relationship between the performance of education systems and the money spent on education (OECD, 2010). However, since we know that there is no direct causal relationship between inputs and learning outcomes, we need to dig deeper into the performance profiles of the education systems of Southeast and Central European countries.

The composition of educational performance profiles

The prevailing underlying concept of contemporary educational policies is based on a great emphasis on learning outcomes. The *learning outcomes based approach* is the result of two parallel processes: the growing emphasis on learning and learning pathways instead of emphasising teaching and school structure (*lifelong learning*), and the gradual reconsideration of relevant school knowledge, that is, the growing focus on applicable knowledge: the knowledge, skills and attitudes (competencies) that enable the learner to do things in diverse contexts (Radó, 2010/b). Due to this paradigm shift in education – and due to the increasing amount and quality of comparative student performance assessment information – we have a tendency to forget about the rather traditional statistical data and indicators. However, as the overview on the following

² This and the following figures do not include all European countries. The selection of the countries for the figures is intended to illustrate regional patterns in a visible way; including all countries would not change the overall picture.

pages will demonstrate, when judging the output of primary and secondary education systems we need to incorporate both types of information and should reveal how they are interlocked.

The *performance profile* of education systems is composed of three equally important aspects: (1) *participation and progression*, (2) *the quality of learning outcomes* and (3) *the equity of learning outcomes*. What determines the key features of an education system is the interplay between these aspects (Radó, 2010/a). In relation to any of these aspects there are many indicators available that enable comparative analysis. However, since the space in the present paper is limited, only certain signals will be offered that support the major conclusions and help to identify questions for further analysis and research. For the sake of simplicity and comparability, when outlining a brief overview of the quality and equity of learning outcomes the reading literacy results of the PISA survey will be used. (Incorporating PISA data on Mathematics and Science or the results of other international assessment surveys would not really change the overall picture.)

Participation

In spite of the sometimes questionable reliability of statistical data from Southeast Europe, it is obvious that there is a visible gap between the two European regions in terms of the key participation indicators. Dropout rates in primary education and enrolment rates in secondary education are much more favourable in Central Europe, the latter being almost universal. Participation in the countries of the Balkan Peninsula is especially dramatic for Roma children. For example, according to a 2005 UNDP survey, in Serbia the average duration of schooling of Roma children is 5.5 years, and only one Roma child completes primary education out of ten enrolled (UNDP, 2005). Although, as Figure 2 shows, there has been an improvement in secondary enrolment rates in most Southeast European countries in the last few years, around one fifth of students are still not in formal schooling when PISA measures the performance of 15-year-olds. Generally speaking, the most disadvantaged students are dropping out earlier in most of the countries of the region. Bulgaria is an exception, with participation figures closer to the Central European level and – at least according to the TransMonee database – Romania has also achieved a surprising improvement.

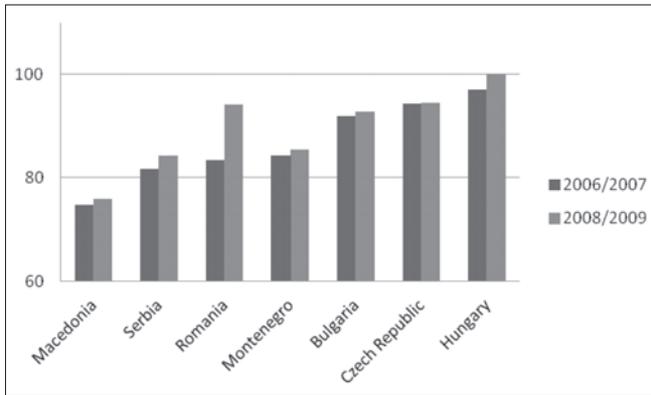


Figure 2: Upper-secondary education enrolment rates, 2006/07 and 2008/2009 school years. (percentage of population aged 15-18, ISCED 3, all programmes)

Source: TransMonee database

If we look at the proportion of early school leavers, which is the underlying indicator for one of the EU's 2020 benchmarks, it is rather salient that in this respect Central European countries are among the top performers on the continent. The relatively higher proportion of early school leavers in Austria and Hungary is the result of the high number of disadvantaged students dropping out from vocational training. Nevertheless, at the age of 15 the large majority of children are still attending schools in all Central European countries.

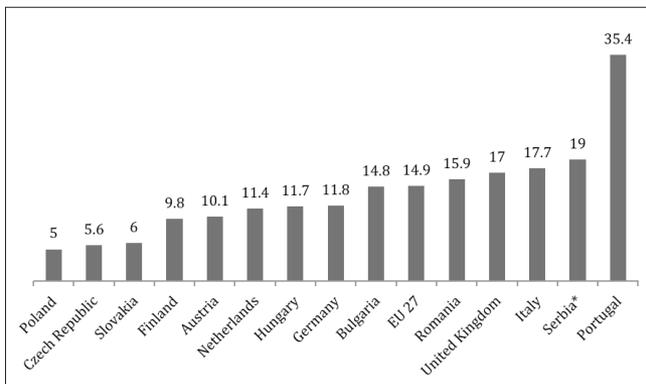


Figure 3: The proportion of the population aged between 18 and 24 years without completed upper secondary education and not undertaking education in selected European countries. (2009)

Source: EU Commission, 2009 (*Serbia: estimate)

The quality of learning outcomes

Data regarding the national average literacy results have already been presented in the introductory part of this paper. What is important to add here is the fact that national averages do not hide any serious deviations from the regional performance patterns highlighted earlier. For example, if we look at the proportion of extremely poorly performing (in fact, functionally illiterate) students we still see two clearly distinct groups: that of Central European countries below the OECD average and the group of Balkan countries with extremely high failure rates. (The only exception from the regional pattern is Hungary, which has fewer failing students.)

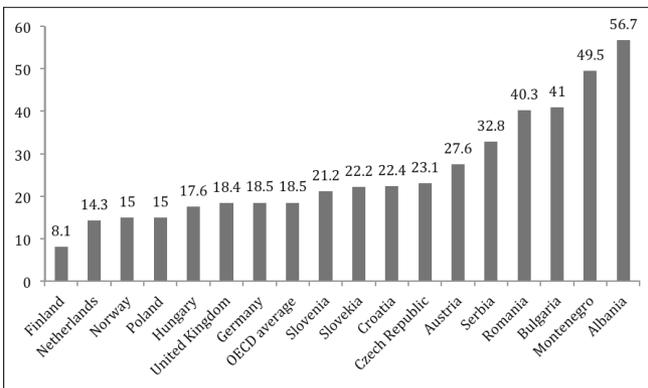


Figure 4: The proportion of students performing at level 1 or below in reading in selected European countries. (PISA 2009)

The other end of the performance scale within the different countries is even more instructive, because the most disadvantaged students did not participate in PISA in Southeast European countries and thus had less impact on the results. (Disadvantaged students are likely to perform more poorly.) In this comparison, the gap between the two regions is even wider and the performance of the countries belonging to the same region is more uniform. (In terms of the proportion of high performers, the exception is Bulgaria, which has results closer to the Central European level.)

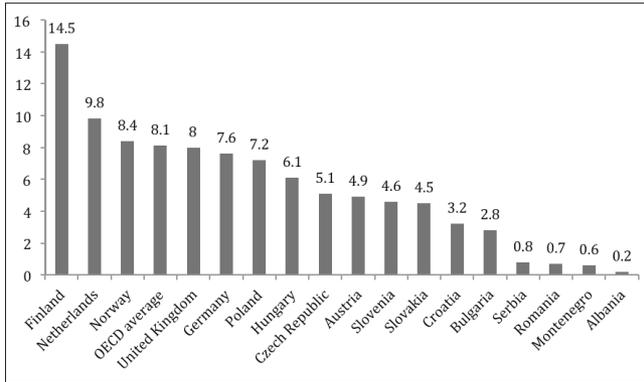


Figure 5: The proportion of students performing at level 5 or above in reading in selected European countries. (PISA 2009)

In order to have an even clearer view of the quality of learning outcomes in the countries of the two regions we can remove the impact of the background of the students. The economic, social and cultural background of the students is described by the ESCS index of PISA. Since the impact of the ESCS index on the performance of students is different in different countries, recalculating their average reading performances assuming a student background identical to that of the OECD average gives us a closer estimate of the quality of learning outcomes. The results of this calculation, shown in Figure 6, are striking: even minor performance differences between countries belonging to the two regions almost completely disappear, while the performance gap between the two regions remains significant. (Again, the exception is Hungary, whose calculated performance is higher than the level of the Central European region.) Of course, the performance of education systems is judged according to measured averages; in this respect this calculation is not particularly significant. Nevertheless, it is very much instrumental in demonstrating the strength of regional patterns of the quality of learning outcomes.

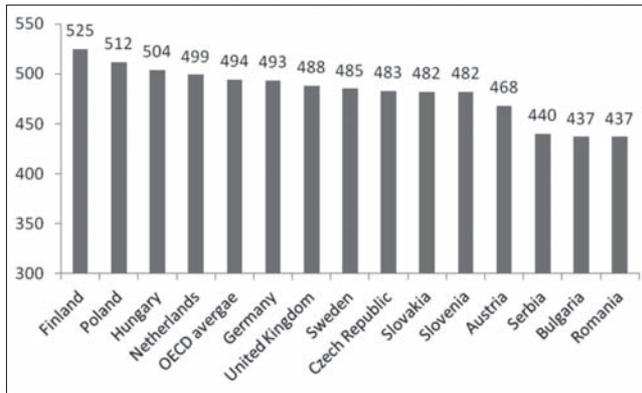


Figure 6: Calculated reading performance after removing the impact of different student backgrounds in selected European countries. (PISA 2009)

Equity of learning outcomes

When describing the equity of learning outcomes we need to turn to two basic characteristics of primary and secondary education systems: the strength of the aforementioned impact of student background on learning outcomes and the strength of selectivity within an education system.

As far as the impact of student background is concerned, the basic underlying question refers to the capacity of education systems to compensate for the negative impact of disadvantages on learning. This compensatory potential of education is high in countries where the impact of student background (in PISA: the ESCS index) generates lower score point differences, and low in countries where differences of background generate large achievement gaps. As the data of Figure 7 proves, schools in Austria, Hungary and the Czech Republic – and slightly less in Slovakia – are failing to compensate for disadvantages. According to many experts, in the case of Roma or immigrant children these education systems even intensify the detrimental impact of the background of students. The only European country that performs more poorly than the systems of Central European countries is Bulgaria. In contrast, on first sight it appears that Serbia, Montenegro and Romania are performing much better than countries of the neighbouring region. However, we should remember that the most “problematic” children have already dropped out of education by the time the PISA tests are administered. Therefore, among the countries selected in Figure 7 the only ones with a really high (i.e., above the OECD average) compensatory capacity are those of Northwest European: Finland, Norway and the Netherlands.

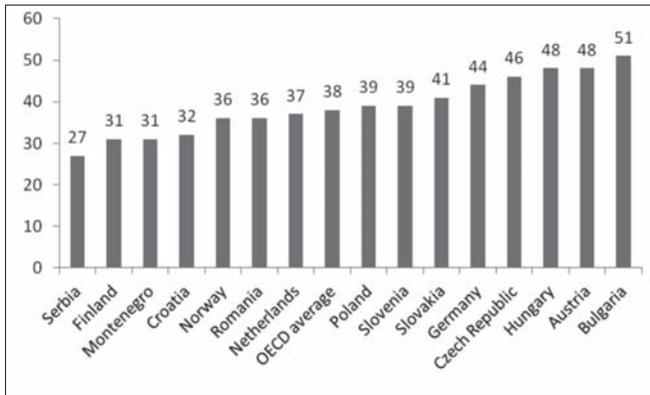


Figure 7: The impact of student background on learning outcomes (ESCS impact in score points) in selected European countries. (PISA 2009)

The other aspect of equity to be looked at is the extent to which these education systems are selective. In selective education systems there is strong pressure to separate all children who may cause difficulties in the teaching-learning process. As a result, in these systems there is a tendency to create homogeneous classrooms for both advantaged and disadvantaged students. As various analyses have shown, average achievement levels are significantly higher in heterogeneous classrooms than in homogeneous classrooms. Therefore, selection reduces the average performance of those children who are separated or segregated.

The intensity of selection is indicated by the extent to which the variance of achievement results is explained by differences between schools and within schools. If differences between schools prevail in an education system, the system is selective. As the comparison of selectivity of education shown in Figure 8 demonstrates, the regional pattern of Central Europe is not so salient, despite the fact that the education systems of the region are the most selective systems in Europe; the extent to which differences between schools explain the variance of student performance is much higher than the OECD average in all of these countries. The extreme selectivity of education in Hungary is even more striking if we recall that while the age when children are sorted into different tracks of the school system is 10-11 years in Austria, the Netherlands and Germany, in Hungary this only occurs at the age of 14-15 years for the large majority of students. On first sight, the regional pattern of the Balkans disappears here; however, we again need to be aware of the large number of disadvantaged students missing from the PISA sample.

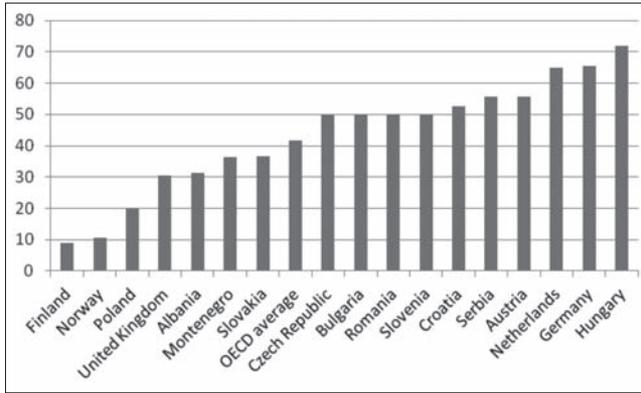


Figure 8: Selectivity of education systems (the proportion of variance explained by differences between schools) in selected European countries. (PISA 2009)

Regional performance patterns

After reviewing some indicators regarding the three aspects that compose the performance profile of the primary and secondary education systems, we can assume with a high probability that there are distinct regional performance patterns. Moreover, we may attempt to summarise the key characteristics of the three regional patterns that will allow us to assess changes within individual countries against their respective regional references.

Characteristics of the three regional performance patterns

On the basis of the reviewed participation, quality and equity indicators, as well as on the basis of the interplay between them, we can identify three performance patterns along the Northwest – Southeast axis of Europe. These patterns are: (1) the compensative education systems of North and Northwest European countries, (2) the selective education systems of Central European countries, and (3) the attritional education systems of the Southeast European region (Radó, 2010/a). The key characteristics of the three patterns are the following:

- Compensative education systems:
 - Almost universal secondary completion
 - Above OECD average quality of learning outcomes
 - High level of equity (low impact of background, weak selection)

- Selective education systems:
 - Almost universal secondary completion
 - Below OECD average quality of learning outcomes
 - Low level of equity of learning outcomes (high impact of background and very strong selection)

- Attritional education systems:
 - High dropout in primary education
 - Relatively poor quality of learning outcomes
 - Average equity at secondary level

In short, the relative inability of schools in Central European countries to compensate for the impact of various disadvantages – combined with relatively high quality and high participation – results in very strong selectivity, that is, the streaming of students with different backgrounds into different tracks of education. The country where the education system represents the most extreme version of the Central European pattern is Hungary. On the one hand, after removing the impact of student background, the quality of learning outcomes in Hungary is significantly higher, while, on the other hand, schools are unable to compensate for disadvantages and the level of selection is extremely high. Since inequities impose greater downward pressure on the performance of the system in Hungary than in any of the other Central European countries, the average PISA results are not significantly higher than in the other countries of the region.

In comparison to Central European countries, the lower quality and weaker compensatory capacity in Southeast European countries leads to very high primary education dropout, especially among the most vulnerable student groups, such as the Roma. The example of Bulgaria, which in many respects sticks out from the regional pattern, is very instructive. Bulgaria is more successful in terms of enrolling and retaining children in formal schooling, but the quality of education at the age when PISA measures the competencies of students is no different from other countries in its own region. Therefore, the impact of student background on learning outcomes is the highest in all of Europe. As the 2006 PIRLS results suggest, the relative success of Bulgaria regarding participation is not independent of the fact that the quality of the first years of education is higher than in the rest of the Balkan region (PIRLS, 2006.)

Thus, we have two distinct regional patterns with rather specific performance profiles. As a consequence, the real reference for the countries of Central and Southeastern Europe is the countries of their own respective regions.

A closer look at Central Europe

Although the Central European performance pattern was maintained in all of the four consecutive PISA surveys, there was a remarkable redistribution of positions within the region. In the former top performer countries (Austria and the Czech Republic), the reading competencies of students declined throughout the entire decade (the decline in the Czech Republic was more persistent, but the decline in Austria was more dramatic). In contrast, reading competencies improved in Hungary and Slovakia to a significant extent (the improvement in Hungary is comparable to that in Poland, which is Europe's development champion.)

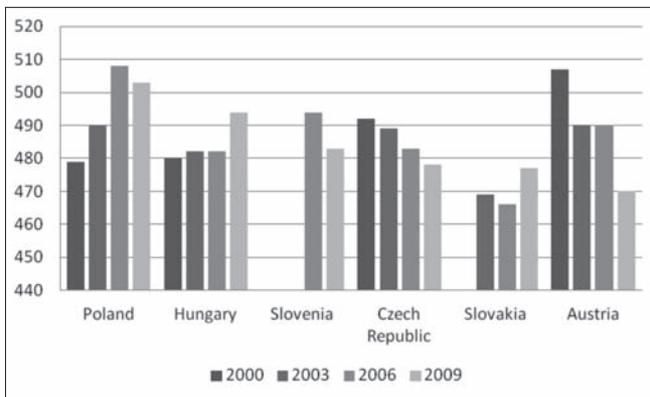


Figure 9: Average reading performance of students in Central European countries. (PISA 2000-2009)

If we look at the reasons for the advance or decline of reading competencies it is quite obvious that both changes – just like in Poland – are the result of a change in the proportion of underperforming students (the change in the proportion of high performing students was much smaller than that of failing students).

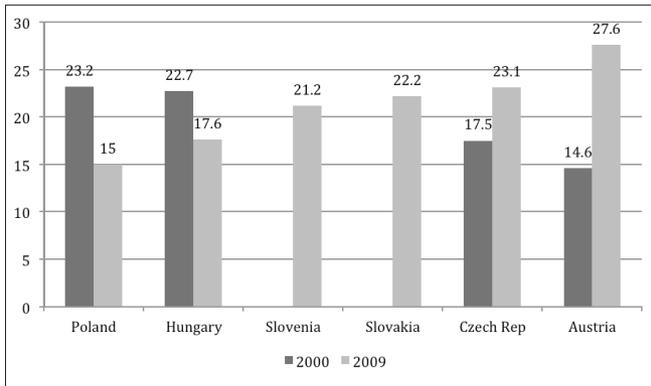


Figure 10: The proportion of students performing at level 1 or below level 1 in reading in Central European countries. (PISA 2000-2009)

At the same time, the significant change in the quality of learning outcomes did not result in significant changes in terms of equity. Therefore, the basic feature of the performance profile of Central European education systems remained the same: a gap between quality and equity.

A closer look at Southeast Europe

In contrast to Central Europe, the originally rather homogeneous performance level of the Southeast European region – especially between the 2006 and 2009 PISA surveys – has become more diverse. The growing difference between these countries is generated by their different levels of success in increasing the reading performance of students. In comparison to the rest of Europe, the advance achieved by Serbia, Romania, Bulgaria and Montenegro is tremendous. However, we can predicate the results of further research and evaluation by saying that improving results from a rather low basis is much easier than any even moderate improvement at a much higher performance level. For example, according to Serbian experts, sending reading tests to schools for practice led to great improvement in itself. Therefore, we may assume that, to a certain extent, one of the side effects of assessment – “test result inflation” (i.e., teaching to the test) – also contributed to the better results.

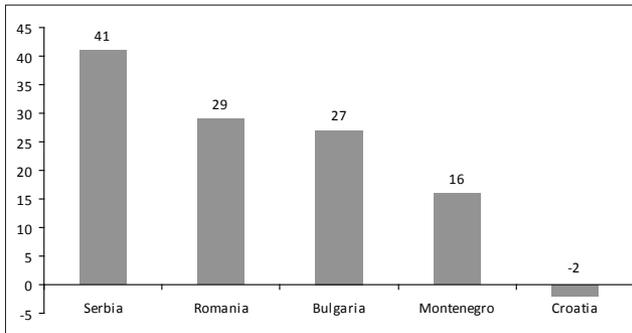


Figure 11: Change in the average reading performance of students in Southeast European countries. (PISA 2006-2009)

As in Central Europe, the major factor behind the change in overall performance in PISA was the decline of the proportion of failing students (in 2006, every second 15-year-old child was functionally illiterate in Serbia, Romania and Bulgaria). Again, the proportion of students with outstanding reading competencies basically remained the same.

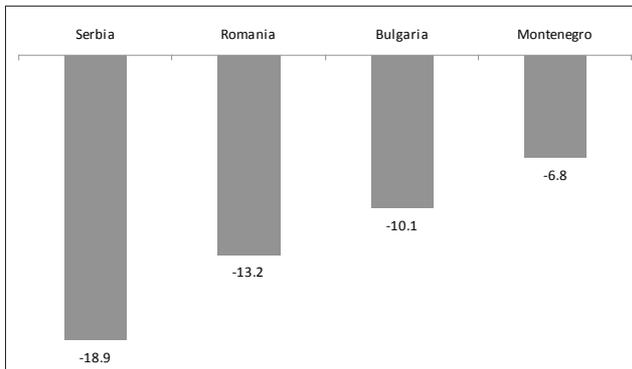


Figure 12: Change in the proportion of students performing at level 1 or below level 1 in reading in Southeast European countries. (PISA 2006-2009)

Certain trends in the Southeast European region clearly prove the validity of the above described performance pattern. For example, as mentioned earlier, in the period between the 2006 and 2009 PISA surveys, secondary enrolment was improved in all of the Balkan countries. The improvement in the capacity of the education system immediately resulted in greater selectivity in almost all of the countries of the region. This suggests that – according to the

Bulgarian pattern – if nothing else changes, better participation indicators automatically change equity indicators for the worse. There are two exceptions. The first is Romania, where there are doubts about the reliability of the incredible improvement in the participation-related EU indicator (these doubts are supported by the unchanged selectivity of the Romanian system). The other example of Bulgaria, where in the last years of the previous decade – before the introduction of decentralised per capita financing – a large scale school system rationalisation programme was implemented, with the closure of many hundreds of schools. The removal of surplus capacities from the system inevitably led to much weaker selectivity.

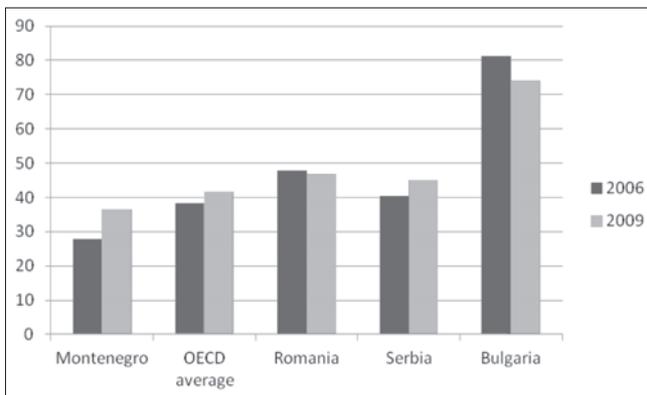


Figure 13: Selectivity: change in the proportion of variance of results explained by differences between schools in Southeast European countries. (PISA 2006-2009)

Policy implications

The policy implications of the above outlined analysis are tremendous. All policies should target the very specific problems of an education system. In other words: the contextual relevance of policies is essential. When governments consider the improvement of the overall performance of their education systems, looking at good policy practices that have proved to be effective in improving average competence results somewhere else is far from being sufficient. As may be obvious already, ameliorating literacy or any other competence level requires addressing the very specific problems of the performance profile of an education system. No doubt, this calls for rather different policy approaches in Southeast and Central Europe.

As far as the specific Central European context is concerned, the policy

dilemmas of countries with declining performance and with improving performance need to be raised in a different way. However, the common foundation for educational policies in the region lies in the fact that the underlying problems are much more related to equity than to the quality of learning outcomes. Strengthening the capacity of schools to compensate for disadvantages and reducing selection within the school system are the key objectives that educational policies should focus on. For justification, the Hungarian example is quite enlightening; the heavy investment in the development of primary and secondary education between 2002 and 2008 resulted in an upgrading of quality indicators, but the gravity of serious equity-related problems remained the same.

For these purposes, it is worth looking at the skeleton of education reform in Poland at the end of the nineties, which moved the performance profile of Polish education closer to the top performing European countries in less than a decade. The Polish reform combined two basic components: (1) a school structure reform by introducing a new comprehensive school type for grades 7-9, and (2) strengthening professional accountability by introducing a performance standard-based school leaving examination at all of the three exit points (Jakubowski et al., 2008). The reason for regarding this policy model as applicable is the fact that it addresses the entire (mainstream) system, instead of focusing on supplementary targeted measures for specific student groups. (Operating with supplementary measures only is an approach that has proved to be ineffective in all Central European countries.)

A variation of this type of reform may well contribute to the improvement of the educational performance of Central European countries through improved equity of learning outcomes. Of course, there are no policy solutions that can be easily transferred from one country to another. A comparative analysis of the equity policies of Central European countries has revealed that – in spite of the very similar performance pattern of these countries – there are extreme differences in the systemic environment of education (Radó, 2009). Therefore, the “Polish reform model” needs serious adjustments to the specific context of each country.

The policy challenge in Southeast European countries is rather different and much more complex. So far, we have seen that improving enrolment without improving the quality of teaching and schools inevitably leads to worsening the equity of learning outcomes. Therefore, governments need to consider how to address all of the three components of the performance profile of their education. Bearing in mind the rather limited policy planning and implementation capacity of governments in Southeast European countries, intervention of this scope and scale appears to be a mission impossible. What might be more

feasible is a sequential policy approach with two phases. In the medium term, a “back to basics” policy seems to be appropriate: strong emphasis on ensuring universal primary completion and secondary enrolment, as well as on strengthening the learning foundations during the elementary phase of schooling. At a certain point, a gradual shift might occur towards policies that address growing equity problems, which will be very similar to the recent problems of Central European countries (Radó, 2010/a).

In relation to policy planning, the difficulties in Southeast Europe are much more serious, also due to the fact that all of the countries of this region operate highly centralised governance and management systems, while Central European countries have already undergone an almost complete decentralisation process. One of the most striking features of centralised governance systems is that they do not offer a favourable environment for the implementation of policies of any kind. (The systemic environment of schools is much less diverse in Southeast Europe than in the neighbouring region – highly centralised systems are much more alike than the decentralised systems.)

Towards a deeper understanding of regional patterns

Obviously, the brief comparative analysis presented on these pages only scrapes the surface of the extremely complex characteristics of the education systems of the two regions. The reasons for the similarities between the countries belonging to the same regional patterns are still invisible, and revealing them requires a great deal of further research. However, there are no doubts about the added value of comparative studies, both in terms of understanding problems and of informing policy making.

The assumption that there are distinct educational performance patterns is already very much instrumental for formulating the underlying questions for further research. The research efforts of the future should aim to provide more insight into policies that may work within a specific context. The path to these insights starts with gaining a better understanding of the mechanisms that cause these similarities. Figure 14 offers a conceptual framework for systematic comparative studies. It includes three relevant layers of problems: comparative analysis (1) of the way schools operate (teaching and the organisational work of schools), (2) of the systemic environment of schools, that is, the interplay between the various functional governance instruments, and (3) of those economic, social, demographic and technological processes that have an impact on governance and schools.

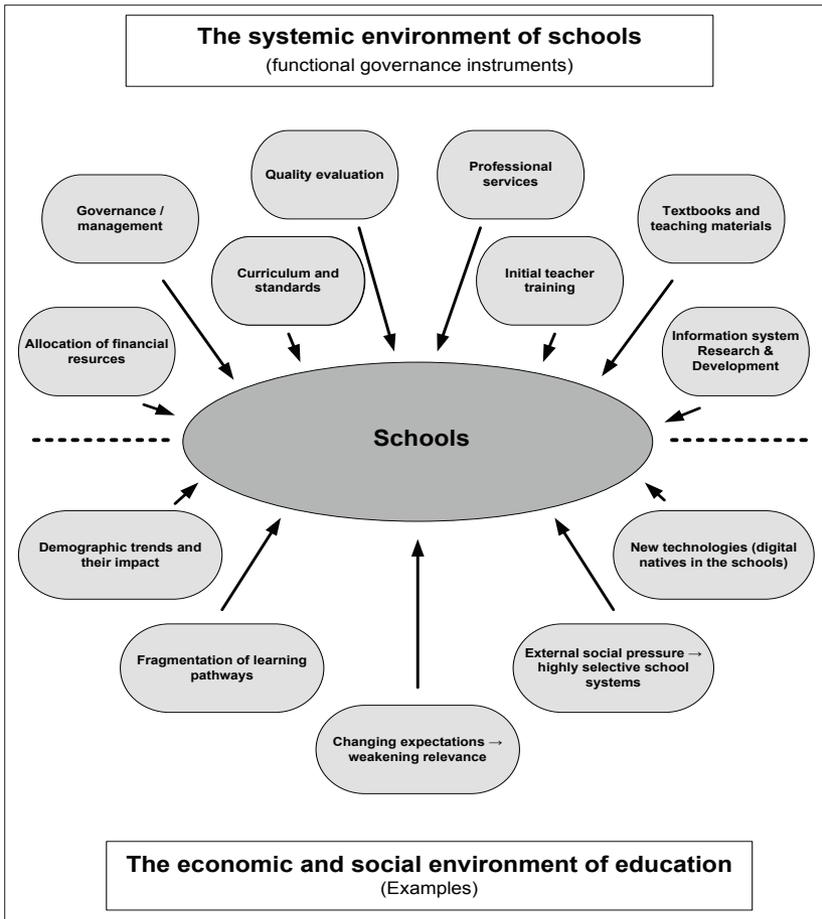


Figure 14: A framework for regional comparative analysis.

The international comparative information that served as the raw material of this overview leads us into the trap of learning of any kind: the more we know, the more we are aware of other things that we do not know.

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Biographical note

PÉTER RADÓ is an expert in educational policy analysis and evaluation. From 1998 he has been working as the Assistant Director of the Institute for Educational Policy in the Open Society Institute, Budapest. Between 2003 and 2007 he was the director of the Center for Educational Policy Analysis in Hungary. Currently he divides his time between teaching at various university programs and working as a consultant in Central-eastern Europe and in South Eastern Europe. He has contributed to a number of technical assistance programs, participated in several capacity building programs and evaluation programs at a European scale. He has also published more than 60 studies and books in various European languages.

Immigrant Students' Achievements in Croatia, Serbia and Slovenia in Context

IZTOK ŠORI*¹, NIKA ŠUŠTERIČ² AND SLAVKO GABER³

∞ Achievement gaps between immigrant and native students indicate failure to assure educational equity in the majority of countries assessed by the Programme for International Student Assessment in 2009 (PISA, 2009). The present article explains disparate achievement results in Europe, first testing the hypothesis of old and new democracies. In further contextualisation of the achievement results, the analysis seeks explanations beyond the common education system explanatory model. Specifically, the article considers results from Croatia, Serbia and Slovenia, highlighting the significance of language distance between native and immigrant students as well as migration regimes as important factors in creating or reducing the achievement gap between native and immigrant students. Evidence has been found that immigrant students score worse in countries with guest labour immigration regimes than in the countries with large scale forced immigration of people of the same ethnic (linguistic) origin.

Keywords: Achievement, Equity, Immigrant students, Migration patterns, PISA 2009

Introduction

Although migration and the subsequent education of immigrant children are an old and widespread phenomenon, “it is only in recent years that

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international database[s] have become available with which to conduct quantitative studies on the situation of immigrant students⁴ (Organisation for Economic Co-operation and Development (OECD), 2006, p. 30).

PISA assessments, the most comprehensive data set on the subject, regularly demonstrate that immigrant students⁴ have comparatively lower education achievement than native students in most of the countries assessed. In PISA 2003, which focused on mathematics, native students in OECD countries outperformed first generation immigrant students by 48 points (OECD, 2006, p. 183). In PISA 2006, first generation immigrant students lag, on average, 58 points behind native students in science (OECD, 2007, p. 175). In the most recent assessment of reading competences, PISA 2009 found native students in OECD countries outperformed first generation immigrant students by 50 points (OECD, 2010c, p. 170).

Experts from PISA claim that 40 points represent one school year (OECD, 2010c, p. 49). If that is the case, the differences presented above raise serious concerns regarding the future prospects of a considerable part of the population. It is expected that immigrant children will comprise up to one third of the European Union (EU) school population by 2020 (Huttova, McDonald & Harper, 2008, p. 2), meaning that not only students themselves will have to face the challenge, but European societies as well.

Although empirical evidence suggests that students who speak a language other than the language of instruction at home score lower than students whose households speak the language of instruction (OECD, 2006, p. 77; OECD, 2010c, pp. 177-181), language proficiency is neither the only nor the most important factor contributing to lower achievement of immigrant students. Data obtained by PISA (OECD, 2010c, pp. 177-179) demonstrate a high correlation between socioeconomic background and immigrant students' test results. Research in the United Kingdom has confirmed that socioeconomic status is the key factor when explaining achievement gaps between immigrant and native students (Rothon, 2004). In France, there is evidence that immigrant children have lower social mobility than students without immigrant status (Simon, 2003, p. 1093). Even after accounting for socioeconomic status, however,

4 We use the PISA definition of immigrant background: (1) native students (born in the country of assessment, or with at least one parent born in that country; students born abroad with at least one parent born in the country of assessment are also classified as 'native' students), (2) second generation students (born in the country of assessment but their parents were born in another country), and (3) first generation students (born outside the country of assessment and their parents also born in another country) (OECD, 2010b, p. 170).

it is obvious that socioeconomic standing cannot entirely explain the difference. Most authors agree that several factors are involved, often depending on the national context (see, e.g., DfES, 2005; Gillborn & Mirza, 2000; Kristen & Granato, 2007).

In order to grasp the complexity of variations in achievement levels among immigrant and native students, it is important to consider two points. Firstly, there are considerable achievement gaps between different immigrant ethnic groups within one country (e.g., Rothson, 2007), but also, as Crul and Schneider (2009) demonstrate, there are differences in the performance of immigrants of the same ethnic origin in different countries. Secondly, lower immigrant performance is not without exception. In traditional settlement countries, such as Australia, Canada and New Zealand, there are virtually no performance differences between immigrant students and their native peers. This is often linked with the immigration regimes of these countries, which are grounded on the selection of the majority of immigrants “on the basis of their ability to make an economic contribution, which creates a highly educated immigrant class” (OECD, 2011, p. 70).

In the context described above, we narrow the focus of the present paper first to ten European countries. The criteria used to select these countries included their status as an old or new European democracy, and their diverse geographic locations, educational traditions, as well as the achievement levels of native and immigrant students, the background of the immigrant population and immigration patterns. The paper endeavours to establish whether there are any consistent patterns related to the results achieved.

We then narrow our scope to three specific states of the former Yugoslavia: Croatia, Serbia and Slovenia. These three states share a common history and have similar political arrangements and economies. They are particularly suited to this inquiry because they are linguistically close and have had comparable education systems for 70 years. Slovenia, the leader in student achievement standards in PISA 2009, is by far the worst in assuring equity in education for its immigrant population – it is almost “European”. In Croatia, the achievement gap between immigrant and native students is relatively small, and in Serbia immigrant students outperform their native peers. These differences are intriguing in their own right, but what triggered this analysis of achievement gaps between immigrant and native students in these countries are the distinctive immigration patterns. For the past few decades, Slovenia has been primarily a labour immigration country, whereas in the 1990s Croatia and Serbia experienced the largest process of forced migration in Europe since World War II.

The present paper endeavours to:

1. Present the actual results from the PISA 2009 assessment in Croatia, Serbia and Slovenia in a more detailed manner. In doing so, we will use – for comparative reasons and to contextualise the results – average OECD results as well as results for five selected former socialist countries (Croatia, Estonia, Hungary, Serbia and Slovenia) and five selected old democracies (Austria, Belgium, Finland, Germany and Norway) in Europe. In this section, we will try to test the comparability of Croatia, Serbia and Slovenia in the European context.
2. Conceptualise and present differences in immigration regimes and their effects on student immigrant populations in Croatia, Serbia and Slovenia.

Croatia, Serbia and Slovenia in the European Context

As mentioned above, the present paper narrows the comparison of immigrant and native students in Croatia, Serbia and Slovenia only to countries in Europe. The comparison focuses on five post-socialist countries (the three former Yugoslav Republics, Estonia and Hungary) and five old democracies (Austria, Belgium, Germany, Finland and Norway).

Table 1: Old and new European democracies and reading achievement differences between native and immigrant students.

Country	Native Students' Score Points	Immigrant Students' Score Points	Difference between Native and Immigrant Students	Share of Immigrant Students	GDP (PPP) per Capita
Austria	482	414	68	15.2	39,647
Belgium	519	451	68	14.8	36,322
Finland	538	468	70	2.6	36,843
Germany	511	455	56	17.6	35,551
Norway	508	456	52	6.8	55,198
Croatia	479	461	18	10.7	16,474
Estonia	505	470	35	8.0	20,753
Hungary	495	507	-12	2.1	19,829
Serbia	442	456	-14	9.5	10,911
Slovenia	488	441	47	7.8	28,893
OECD Average	499	457	42	10.3	33,225
Selected Countries Average	496.7	457.9	38.8	9.5	30,042
Old Democracies Average	511.6	448.8	62.8	11.4	40,712
New Democracies Average	481.8	467	14.8	7.6	19,372

Note: Achievement data were obtained and calculated from the PISA 2009 database. GDP (PPP)

(Gross domestic product based on purchasing-power-parity per capita) is calculated in International Dollars and obtained from the World Economic Outlook Database (International Monetary Fund, October 2009).

PISA 2009 reading proficiency results show that in OECD countries, on average, immigrant students perform 42 points lower than native students. Compared to both the old and new European democracies, the difference is slightly lower (38.7 points). There is no significant difference between European countries and the rest of the OECD, but there is a significant difference between the old and new European democracies. Achievement differences in the old democracies reach 62.8 points, which is significantly higher than the OECD average. On the other hand, differences in former socialist countries – new democracies – are significantly lower (14.8 points) than the OECD average. This pattern is also apparent when widening the scope to all members of the EU. Considering these results, it could be tempting to conclude that the socialist inclination towards equality has clearly impacted the present education systems in new democracies, but there are obvious and significant differences within the former socialist camp. Croatia has an 18 point difference, Hungary has a negative 12 point difference and Serbia has a negative 14 point difference, whereas Estonia has a 35 point difference and Slovenia a 47 point difference, both close to the average OECD difference. Slovenia and Estonia thus disprove the theory based simply on old and new democracies and inequality and equality concepts. It is not only the socialist or democratic past that distinguishes both groups of countries. From the 2009 PISA data, one might also be inclined to interpret the standard of living and public expenditure on education as the two factors explaining the majority of the overall educational achievement. However, the logic that “better standards bring better results,” which applies to student results in some countries, is not valid with regard to immigrant students.

Table 2: Share of students at proficiency levels 3 – 6 in reading achievement: native and first generation immigrant students.

Country	Native Students		Immigrant Students	
	Share	Rank	Share	Rank
Austria	53	8	17.6	9
Belgium	67.2	2	36.8	5
Finland	76.1	1	40.5	2
Germany	65.4	3	37.4	3
Norway	63.3	5	37	4
Croatia	51.7	9	35.9	6
Estonia	62.8	4	C	C
Hungary	59	5	56.8	1
Serbia	33.6	10	34.4	7
Slovenia	55.3	7	23	8
OECD Average	59.6		38.7	
Selected Countries Average	58.7		31.9	
Old Democracies Average	64.9		33.9	
New Democracies Average	52.5		37.5	

Note: The abbreviation C denotes missing data due to too few observations to provide reliable estimates or no observation at all (PISA, 2010c, p. 23). Data were obtained and calculated from the PISA 2009 database.

Table 2 shows significant differences in the number of students who reached proficiency level 3,⁵ which is the minimum competency required for future professional success.⁶ Achievement gaps are significant both for the native population of students and for the first generation of immigrants. In a number of countries, significant differences exist between the native and immigrant population within the same country.

There are significant differences, for example, in the share of native students at level 3 or higher between Serbia (33.6%) and Finland (76.1%). Yet there is an obvious difference between the share of native Finns reaching level three and the share of immigrants (40.5%) reaching the same level. The proportion of immigrants in Serbia

5 While at proficiency level 2 on the reading scale students only begin to demonstrate reading skills, students at proficiency level 3 are capable of reading tasks of moderate complexity, such as locating multiple pieces of information, making links between different parts of the text and relating the text to familiar everyday knowledge (OECD, 2010a, p. 51) and thus are more likely to experience success in their future life.

6 This is most likely true in terms of OECD standards. Additionally, the matter is complex considering differences in cultural capital validation in further education and subsequent employment opportunities and salaries in different countries.

(34.4%) who have reached level 3 competency is close to the proportion in Finland and far higher than that in Slovenia (23%) and Austria (17.6%). Hungary's immigrant students perform exceptionally well: 56.8% of first generation students have reached at least proficiency level 3. In Hungary's second generation, the share is 73.7% - close to the Finnish native percentage of 76.1, and far higher than the OECD average for second generation students, which is 45.3%. Generally, however, a pattern does seem to emerge: in countries where native students perform exceptionally well, immigrant students lag behind and do not gain the same benefits from the educational system.

Table 3: Reading achievement of native students and students with an immigrant background (first and second generation).

Country	Native Students		Second Generation Students		First Generation Students		Score Points Difference between First and Second Generation Students
	Score Points	% of Students	Score Points	% of Students	Score Points	% of Students	
Austria	482	84.8	428	10.5	385	4.8	43
Belgium	519	85.2	453	7.8	449	6.9	4
Finland	538	97.4	493	1.1	449	1.4	44
Germany	511	82.4	457	11.7	450	5.9	7
Norway	508	93.2	463	3.6	447	3.2	16
Croatia	479	89.3	465	7.2	452	3.5	13
Estonia	505	92.0	470	7.4	470	0.6	0
Hungary	495	97.9	527	0.9	493	1.2	34
Serbia	442	90.5	464	5.2	446	4.3	18
Slovenia	488	92.2	447	6.4	414	1.4	33
OECD Average	499	89.7	468	5.8	449	4.5	19
Selected Countries Average	496.7	90.5	466.7	6.18	445.5	3.3	21.2
Old Democracies Average	511.6	88.6	458.8	6.9	436	4.4	22.8
New Democracies Average	481.8	92.4	474.6	5.4	455	2.2	19.6

Note: Data were obtained and calculated from the PISA 2009 database.

In OECD countries, second generation students tend to outperform first generation students by 19 points in the reading test. In the selected countries, the difference amounts to an average of 21.2 points. The difference in reading scores is highest in Finland and Austria, where it exceeds 40 points. At 33 points, Slovenia also has a significant discrepancy. In Estonia, there is no difference in achievement between the two generations. Small gaps were ascertained in Belgium and Germany, where second generation students do not outperform first generation students by more than 4 and 7 points respectively. Large achievement gaps highlight the disadvantages of first generation students, and possibly the

different backgrounds across immigrant cohorts; they could also signal positive educational and social mobility across generations (OECD, 2010c, p. 72).

Table 4: Reading achievement by immigrant status, before and after accounting for economic, social and cultural status (ESCS) in selected countries.

Country	Difference between Native and Immigrant Students before Accounting for ESCS	Difference between Native and Immigrant Students after Accounting for ESCS	Score Point Difference
Austria	67	37	30
Belgium	68	41	27
Finland	70	60	10
Germany	56	27	29
Norway	52	33	19
Croatia	18	10	8
Estonia	35	34	1
Hungary	-12	-11	-1
Serbia	-14	-18	4
Slovenia	47	24	23
OECD Average	43	27	16
Selected Countries Average	38.7	23.7	15
Old Democracies Average	62.6	39.6	23
New Democracies Average	14.8	7.8	7

Note: Data were obtained and calculated from the PISA 2009 database.

When examining and presenting performance differences between immigrant and native student groups in an international context, it is essential to consider the different background characteristics of immigrant populations across countries. Family cultural capital, socioeconomic status and other background characteristics reflect situations at the time of immigration (Bourdieu, 1991, pp. 51-52) and also determine the extent to which immigrants are able and willing to adapt to a new environment (Stanat & Christensen, 2006, p. 59). In selected European countries, students with an immigrant background are in general socioeconomically disadvantaged,⁷ which explains part of the performance gap between these students and native students. Across OECD countries, immigrant students tend to have a socioeconomic background that is on average 0.4 of a standard deviation lower than their native peers (OECD, 2010c, p. 71). Accounting for ESCS explains 16 score points difference

7 Socioeconomic background is measured by the PISA index of economic, social and cultural status (ESCS), combining information on parents' education and occupations and home possessions. (OECD, 2010c, p. 29)

between native and immigrant students in OECD countries (15 points in selected European countries). The link is particularly strong in old democracies such as Austria (30 points difference), Germany (29 points) and Belgium (27 points), but the difference is also high in the new democracy Slovenia (23 points), whereas in Hungary, Estonia and Serbia ESCS does not negatively affect immigrant students' performance.

The data point with a degree of certainty to the type of immigration of the respective countries, as well as to the background characteristics of immigrants. Nevertheless, large differences might also allude to the discrimination and low inclusion of immigrants in, for example, the labour market.

Differences in achievement accounted for by students' socioeconomic status illustrate the significant influence of immigrant students' backgrounds. As a result, it is necessary to develop mechanisms that enable students with lower levels of cultural capital to attain this capital in school. Pedagogues (Morais & Neves, 2010) suggest that better conditions for learning, as well as high expectations, are important for better results. However, economic, social and cultural status is not the only predictor of success in education: immigrant students score an average 27 points lower than native students, even after accounting for ESCS, in the OECD and 23.7 points lower in selected countries.

Table 5: Reading achievement of native students and students with an immigrant background who speak a language other than the language of instruction at home.

Country	Second Generation Students Speaking Another Language at Home		Second Generation Students Speaking the Language of Assessment at Home		Achievement Difference: Second Generation Students Speaking and not Speaking the Language of Assessment at Home	Achievement Difference: Native Students and Immigrant Students who Speak a Language other than the Language of Assessment at Home, after Accounting for ESCS
	% of Students	Score Points	% of Students	Score Points		
Austria	50.6	428	18,3	441	13	31
Belgium	27.4	422	24.2	480	58	48
Finland	28.4	476	15.9	C	C	69
Germany	33.1	448	33.3	483	35	33
Norway	35.0	453	18.1	484	31	40
Croatia	1.4	C	65.8	466	C	C
Estonia	9.7	454	82.9	472	18	50
Hungary	1.7	C	41.0	527	C	C
Serbia	1.1	C	53.5	466	C	C
Slovenia	41.9	439	40.3	466	27	27
OECD Average	20.7	462	32.3	481	19	35

Note: The share of students is calculated from the immigrant student population and not from the

general population. The abbreviation C denotes missing data (see notes for Table 2). Data were obtained and calculated from the PISA 2009 database.

Another factor important for immigrant students' achievements is language, particularly when the language spoken at home is different from that used at school. After accounting for socioeconomic background, immigrant students whose households speak a language other than the PISA assessment language tested on average 35 points lower than non-immigrant students who spoke the instruction language at home. In selected countries, the difference is smaller by one point. The language spoken at home accounts for the highest number of score points of immigrant students in Finland (69 points), Estonia (50 points) and Belgium (48 points). It also explains a difference of 27 score points or more in other countries, except in Croatia, Hungary and Serbia, where the share of students speaking a different language at home is very small. In Hungary, slightly more than 6% speak a different language at home, and in Croatia and Serbia the share is 3% or less.

Table 6: Score point differences in reading achievement for immigrant students after accounting for enjoyment in reading and summarising strategies.

Country	Score Point Difference
Austria	32.2
Belgium	38.7
Finland	40.1
Germany	13.8
Norway	16.7
Croatia	8.4
Estonia	26.1
Hungary	-9.9
Serbia	-13.2
Slovenia	9.3
OECD Average	20.5
Selected Countries Average	16.2
Old Democracies Average	28.3
New Democracies Average	4.1

Note: Data were obtained and calculated from the PISA 2009 database.

There is an additional factor that influences educational achievement but is less commonly analysed: enjoyment in learning and learning strategies. PISA reveals that in OECD countries, boys are on average 39 points behind

girls in reading and suggests that differences in the way boys and girls approach learning, and how engaged they are in reading, account for most of the gap in reading performance (OECD, 2010d, p. 13). Stanat and Christensen (2006) claim that the PISA 2003 assessment depicts immigrant students as motivated learners and learners with positive attitudes toward school. Such motivation can hardly persist if the student does not enjoy reading. A review of the PISA 2009 assessment shows that in OECD countries immigrant students on average demonstrate lower levels of enjoyment in reading and use less efficient summarising strategies, both possibly contributing to decreased results of 20.5 points. The link is particularly strong in Finland, where engagement in reading and learning strategies account for 40.1 score points, although it also exceeds 30 points in Austria and Belgium. In Slovenia, immigrant students would perform 9.3 points better if they reached the same level of enjoyment and awareness of learning strategies as native students. In Croatia, Hungary and Serbia, immigrant students enjoy reading and use affective learning strategies to a similar extent as native students. It is important to recall that immigrant students in the latter three countries have on average a similar socioeconomic status to their native peers, and that they nearly all speak the language of instruction at home as well. The importance of these factors is confirmed by the low achievement gaps between native and immigrant students in all three countries. Because learning dispositions tend to be co-dependent with language proficiency, countries where language and enjoyment in reading account for differences between immigrant and native students should put more effort into improving the learning strategies and language skills of immigrant children, in order to, in turn, raise their level of learning enjoyment. In addition, children's aspirations often depend on the aspirations of their parents and those related to their socioeconomic status (Rothon, 2007, p. 315), which again indicates the importance of the overall inclusion of immigrants in society.

Finally, in addition to socioeconomic background, language used at home and students' attitude towards learning and learning strategies, PISA also assesses school-related factors, including the distribution of immigrant students across schools or the quality of teacher staff. These data tend not to be comparable and thus are not included in the present analysis. Specifically, school tracking already occurs in some countries at the age of 10, while in others it occurs just a few months before the PISA assessment (at the age of 15), and in the rest a few months after the assessment.

Croatia, Serbia and Slovenia in the Migration Regime Context

Assuming an accurate explanation of the respective differences and similarities in education achievements requires more than just a European, socialist or Yugoslav comparison and context, the present section analyses the educational achievement of immigrant students in Slovenia, Croatia and Serbia, taking into account national peculiarities. The three countries with state-historical, linguistic and cultural ties are – twenty years after Yugoslavia⁸ - new European democracies and, after wars, partitions, etc, the strongest economies emerging from the former common state. They are, however, also countries with considerable differences in their development and comparative educational achievements. What is more, they have different immigration histories.

Table 7: GDP (PPP) per capita and average PISA achievements (score points) in Croatia, Serbia and Slovenia.

Country	GDP (PPP)	Reading	Mathematics	Science
Serbia	10,991	442	442	443
Croatia	16,474	476	460	486
Slovenia	28,893	483	501	512

Note: Data on GDP (PPP) are presented in International Dollars and were obtained from the World Economic Outlook Database (International Monetary Fund, October 2008). Reading results were obtained from the PISA 2009 database, mathematics results from the PISA 2003 database, and science results from the PISA 2006 database.

We see that GDP (PPP) per capita for Slovenia is more than double of Serbia's, while the GDP (PPP) per capita for Croatia is in between the two. Their PISA results are distributed in the same manner: Slovenia has the highest GDP and the highest average PISA results. However, Slovenia also demonstrates the largest difference between native and immigrant students' achievement in reading, with an exceptionally low proportion of first generation immigrant students reaching at least level 3 of reading proficiency. In Croatia, where GDP is somewhat lower than in Slovenia, the achievement gap between immigrant and native students is relatively small. Serbia has the lowest GDP of the three countries, and immigrant students in Serbia perform better than their native peers.

8 Cf. Hudson and Bowman (Eds.) (2011) – After Yugoslavia.

Table 8: Reading achievement of native students compared to the average immigrant achievement in Croatia, Serbia and Slovenia (score points).

Country	Native Students	Immigrant Students
Serbia	443	457
Croatia	479	462
Slovenia	489	447.5

Note: Data were obtained from the PISA 2009 database.

Providing context for the PISA 2009 results in Serbia, Croatia and Slovenia offers some immediate explanations of the results. The facts presented indicate that the higher achievement of immigrant students in Serbia, the relatively small gap in Croatia and the considerable difference in Slovenia is not solely a function of the economy. It is also clear that the increased achievement gap is not a result of smaller differences between native and immigrant students in formerly socialist countries. Another possibility could be that the results are a function of different education systems. Previous research suggests that a late school starting age and early school differentiation have a negative impact on the achievement of immigrant children (Crul & Schneider, 2009; Schütz & Wößmann, 2005). However, comparison reveals that all three systems have maintained their former structure, including prolonged primary education. The wider inclusion of children in Slovenia in pre-primary education⁹ and the structure of the education systems, including their inclusiveness, do not support the idea of any difference occurring as a result of different educational arrangements.

Thus, another hypothesis emerges: in migration regimes, one should search for an explanation of different immigrant students' achievements before considering the educational reasons for the difference. Even though coherent national models of integration or incorporation are elusive (Freeman, 2004, p. 945), rendering it difficult to present coherent migration regimes, such categorisation can serve as a helpful tool in understanding state policies and their effects, even if they are not part of wider strategies. Coherence is not as important to this inquiry as the consequences of policies, practises or reactions in relation to questions of who

9 According to the Statistical Office of Republic of Slovenia, 73.9% of children of an appropriate age were included in pre-primary education in the school year 2009/2010 (http://www.stat.si/eng/novica_prikazi.aspx?id=3139). The Ministry of Science, Education and Sports of the Republic of Croatia reports an enrolment rate of 58% for the same school year (<http://public.mzos.hr/Default.aspx?sec=2195>) and the Ministry of Education and Science of the Republic of Serbia reports an enrolment rate of 47%. (<http://www.mpn.gov.rs/aktuelnosti.php?id=4171>)

immigrates and why, and how immigrants are included and accepted in society.

Table 9: Share of immigrant students and reading achievement in Croatia, Serbia and Slovenia.

Country	Native Students		First Generation Students		Second Generation Students		First and Second Generation	
	%	Score Points	%	Score Points	%	Score Points	%	Score Points
Croatia	89.3	479	3.5	452	7.2	465	10.7	461
Serbia	90.5	442	4.3	446	5.2	466	9.5	457
Slovenia	92.7	488	1.4	414	6.4	447	7.8	441

Note: Data were obtained and calculated from the PISA 2009 database.

Croatia and Serbia have only recently become countries of wider immigration. They faced massive, mainly forced, migration following the wars in the 1990s. On the other hand, Slovenia was and is a country of low skilled labour immigration, which is procured directly via work permits for certain professions only.¹⁰ What does PISA indicate in this regard? There are no considerable differences in the proportion of immigrant population in the respective countries; however, Croatia and Serbia have an important share of first generation students (33% and 45% of all immigrant students). Combining these facts with immigration statistics suggests that most immigrant students in Croatia and Serbia have a history of forced migration in their families. By contrast, Slovenia has only 18% first generation immigrant students (cal. from OECD, 2010b, p. 170), and nearly all of them are children of labour immigrants.

Table 10: Native and immigrant students' reading achievement before and after accounting for economic, social and cultural status.

Country	Difference in ESCS between Native/Immigrant Students	Immigrant Students' Score Points Difference after Accounting for ESCS
Croatia	0.26	8
Serbia	0.11	4
Slovenia	0.62	23
OECD Average	0.44	16

Note: Data were obtained from the PISA 2009 Database.

10 At the beginning of 2009, 14.6% of persons in employment in Slovenia were born abroad. In comparison to the native population, these immigrants have lower average education, are employed largely in construction and manufacturing and have low enrolment in tertiary education (SURS, 2010).

Comparing the economic, social and cultural status of immigrant and native students in the respective countries (Table 10), the differences are the highest in Slovenia, where after accounting for ESCS the gap narrows to 23 points (8 points in Croatia and 4 points in Serbia). Even if forced migration is unplanned and unpredicted, it seems that it involves people whose average socioeconomic status is higher than in the case of low skilled labour immigration. However, PISA assessments do not gather data on the ESCS of immigrants at the time they entered the country. Furthermore, the socioeconomic position of immigrant families also depends on their further inclusion in society.

Castels (1995) defines three broad approaches to ethnic diversity, all of which are closely linked to historical patterns of nation-state formation: differential exclusion (most clearly expressed in countries with “guest worker” immigration), assimilation (post-colonial countries) and multiculturalism (Australia, Canada, Sweden, USA). Applying this model to the PISA assessment results, immigrant students in general perform best in multicultural societies and worse under the pressure of differential exclusion. The latter best describes the Slovenian pattern of integration. Croatia and Serbia may be classified by introducing a further developed and differentiated concept of “new immigration states” (cf. OECD, 2006, pp. 18-21; OECD, 2010f, pp. 24-27), with immigration specified as forced, of a wide social spectrum, with little or no language distance and occurring as part of a process of ethnic homogenisation. As a result, the inclusion of immigrants in Croatia and Serbia was faster and less problematic than in Slovenia. Since most immigrants were ethnic Croats or Serbs, they integrated and gained citizenship rights quickly. In Croatia in 1991 and 1992, more than 400,000 refugees from Bosnia and Herzegovina registered; it is estimated that 120,000 of these acquired Croatian citizenship (UNHCR, 2010).¹¹ In 1996, Serbia received more than half a million refugees, most of them ethnic Serbs from Croatia and Bosnia and Herzegovina; more than 200,000 of them gained Serbian citizenship (Republika Srbija, 2008).¹² On the other hand, immigrants in Slovenia are not

11 The Croatian census from 2011 reveals that the largest group of residents born outside the country were born in Bosnia and Herzegovina (456,580), Serbia and Monte Negro (86,830), Slovenia (21,985) and Macedonia (10,329); other countries do not achieve a figure of 10,000 people. (Kupiszewski, 2010, p. 121.)

12 The Serbian census from 2002 reveals that the largest group of residents born outside the country were born in Bosnia and Herzegovina (381,659), followed by Croatia (351,263), Monte Negro (72,033), Macedonia (54,747) and Slovenia (13,128). (Kupiszewski, 2010, p. 134)

ethnic Slovenes. They struggle for years to obtain citizenship¹³ and are excluded from equal participation in the labour market and other spheres of social life, such as political participation. Of nearly 170,000 residents born in another country, the vast majority were born in one of the republics of former Yugoslavia¹⁴ (SURS, 2002). Recalled data from PISA 2009 that are complementary to the statistics presented above: 3% of immigrant students in Croatia and 2.7% in Serbia report that they speak a language other than the language of instruction at home. In Slovenia, the share is considerably higher: 13.5% among first generation and 41.9% among second generation students. By accommodating to the language of instruction and the rationale of national education, second generation students in Slovenia have closed the gap between themselves and native students by three quarters of a school year. This difference is considerably smaller in Croatia (14 points), while in Serbia first generation immigrant students already outperform their native peers (Table 9). Here again differences in the results arise from differences in migration regimes and from the background characteristics of the immigrant population.

It is important to note that the immigration regime in Slovenia was¹⁵ and is considered similar to German “guest worker” immigration. Slovenia has long considered immigrants to be “foreigners” and “others” whose presence is not permanent. Societal integration such as inclusion, education and enabling a place for immigrants to maintain an identity other than Slovenian have not been prime social or political goals. In parallel, in the time of Yugoslavia, immigrants did not perceive Slovenia as a foreign country; while it actually wasn't, their approach to teaching the Slovenian language and to education in general was indifferent. For the Slovenian population, political stratum, as well as for immigrants themselves, immigrants were and were not immigrants and none of them clearly decided how to treat the new situation (Kobolt, 2002). After the breakup of Yugoslavia, the political situation changed; Slovenia officially became a foreign country, but the relationship of native Slovenes towards immigrants and vice-versa did and did not change – both feel historically and

13 While most inhabitants with immigrant backgrounds do eventually receive Slovene citizenship (Bešter, 2003, p. 282), the “guest worker” logic persists. In 2010, a total of 40,688 work permits were issued; most people with these permits were workers who had already been working in Slovenia for some time and were merely extending their employment (Employment, 2011).

14 67,670 were born in Bosnia and Herzegovina, 49,418 in Croatia, 6,437 in Yugoslavia (now the independent countries of Serbia and Monte Negro) and 27,238 in Macedonia. (SURS, 2002).

15 From 1962 to 1990, some 270,000 immigrants from other Yugoslav republics moved to Slovenia in search of work. They were mainly unskilled and semiskilled workers. (Rizman, 1999, p. 157).

culturally connected, while at the same time treating each other as different. In a way, this makes the situation schizophrenic: achievement differences of immigrant students are identified but not properly addressed. The story is different in the case of migration to Croatia and Serbia. There the immigration was mostly part of the enforced process of ethnic homogenisation. Accordingly, educational integration in Serbia and Croatia was conceptually and linguistically less problematic than in Slovenia.

Conclusion

Achievement gaps between immigrant and native students indicate failures in assuring educational equity in most countries assessed by PISA 2009 (42 score points in the OECD on average). Differences of this extent put the future prospects of considerable and growing parts of the population, and the societies in which they live, at potential risk.

Analyses of PISA 2009 results for 10 selected European countries (Austria, Belgium, Croatia, Estonia, Finland, Germany, Hungary, Norway, Serbia and Slovenia) reveal that on average native students perform better in old democracies. However, the achievement gap between native and immigrant students is on average larger in old democracies than in post-socialist countries. The presented observation suggesting that the divide between old and new democracies could be one of the explanatory mechanisms is, however, also misleading, as, especially in the group of post-socialist countries, results vary considerably. Whereas the gaps in Estonia (35 points) and Slovenia (47 points) are close to the OECD average, the difference is considerably smaller in Croatia (18 points), while in Hungary and Serbia immigrant students perform better than native students.

Moreover, neither exceptionally good overall performance nor small achievement gaps guarantee a larger share of students with immigrant status achieving proficiency level 3, which promises professional success in the future. According to this criterion, old and new democracies perform similarly badly. For example, in Finland, the share of all students reaching proficiency level 3 is exceptionally high (76.1%), and even though it is low in Serbia (33.6%), the total proportion of immigrants reaching level 3 or more is similar in both countries (40.5% and 34.4% respectively).

Immigrants' socioeconomic background explains a large part of the differences in achievement, especially in old democracies such as Austria, Belgium and Germany, but also in one new democracy: Slovenia. The link between lower achievement and not speaking the language of instruction at home is

particularly strong in Finland, Estonia and Belgium, and plays an important role in other countries, with the exception of Croatia, Hungary and Serbia, where the percentage of immigrant students speaking another language at home is low (6.6% in Hungary and 3% or less in Croatia and Serbia). From the results presented, initial policy recommendations can already be drawn. The governments of countries where the socioeconomic background of immigrants plays a significant role in the achievement of immigrant students should consider strengthening the socioeconomic position of immigrant families and should reconsider their inclusion policies. Where language proficiency plays a role, efforts should focus on improving immigrants' language skills. Language proficiency can also affect attitudes toward learning in general and impact the use and development of effective learning strategies, which is why immigrant students should be additionally encouraged to actively participate in the school process.

The present article demonstrates that in the international context the achievement of immigrant students and factors affecting those results cannot be accurately explained without data regarding specific migration regimes. Migration regimes can either be planned or can be the result of a spontaneous set of ad hoc rationales, policies, measures and events. However, migration affects the socioeconomic and cultural background of immigrant populations when they enter a country and when they subsequently undertake the process of integrating into a new society. Immigration patterns are important for achievement, particularly in the case of Croatia, Serbia and Slovenia. Immigrant students scored worse in a country with labour immigration than in countries with large scale forced immigration of people of the same ethnic (linguistic) origin. Understanding the importance of immigration regimes should not be equated with ignoring the importance of immigrant education policy, but it does remind educators to consider important external factors when designing educational policies.

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The Big Improvement in PISA 2009 Reading Achievements in Serbia: Improvement of the Quality of Education or Something Else?

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∞ The PISA 2009 results in Serbia show a big improvement in reading literacy compared to 2006 – the average score is 41 points higher, which is equal to the effect of a whole year of schooling in OECD countries and represents the second highest improvement ever recorded in a PISA study. In the present paper, we discuss potential reasons for such a big improvement based on analysis of the PISA 2009 reading achievements in different countries, with a special focus on countries from the same region (Croatia, Slovenia, Montenegro, Bulgaria, Romania and Albania). The analysis shows that the largest part of the improvement was realised at lower achieving levels, suggesting that the dominant method of teaching in schools is a traditional method oriented towards the acquisition and reproduction of academic knowledge. Findings of data analysis support the conclusion that the improvement is mainly the result of certain contextual factors, such as higher student motivation and a high level of official support for the PISA study in Serbia, rather than representing a real improvement in the quality of education.

Keywords: PISA, Quality of education, Reading literacy

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Reading as an educational outcome: operationalisation and possible approaches to measurement

Measurement of reading as an important educational outcome has a tradition as long as the testing of knowledge itself, having been part of school and research practice since the beginning of the twentieth century. In parallel with changes in society, the economy and culture, as well as with more intensive research into the nature of reading processes, the definition of reading has changed. Consequently, the instruments used to measure this concept have also changed and developed.

In the middle of the last century, under the influence of behaviourism and later of information processing theory, the belief that reading comprehension ability is a series of discrete mental abilities that form a hierarchy was predominant. However, the research focuses of these two approaches were different: behaviourists were more involved in the structural aspects of reading (trying to answer the question as to which activities participate in reading), while the cognitive approach dealt with the functional aspects of reading processes (how activities are coordinated). Thanks to research that originated under the influence of ideas from information processing theory (LaBerge & Samuels, 1974), we gained a plausible explanation of the role of attention in fluent reading, as well as a definition of the process of text understanding as a structure of meanings built through a series of hypotheses that the reader formulates, verifies, adopts or discards while reading. For these researchers, reading is “uncertainty” that exists in the reader, not on the page, and hypotheses are formulated in order to reduce this uncertainty. Efficiency in reading increases with the number of confirmed hypotheses and with more sub-skills being brought to the level of automation.

Understanding educational outcomes, including reading, in line with these conceptions means that knowledge and skills can be broken down into components, with each component always behaving in the same way, regardless of contextual factors. In this case, in the construction of test sets there is a strict requirement that tests should be one-dimensional, i.e., that all items in a sub-test measure the same characteristic, ensuring that the score has essentially the same meaning for all individuals (the assumption of universality). Reading is seen as the sum of discrete abilities and skills (e.g., text understanding, reading speed, oral and written production) that are taught gradually, and their relative contribution can be determined by factor analysis. Tests developed within the framework of this approach are mainly composed of multiple choice questions, suggesting that the main task of the respondents is to find the correct answer

and not to engage in interpretation.

Since the 1970s, measuring reading has been impacted by the penetrating socio-cultural theory of Vygotsky on the interdependence of thought and language, and since the 1980s, when the importance of metacognition was recognised in cognitive psychology, researchers of reading have been oriented towards identifying metacognitive strategies that facilitate and control awareness of the level of text understanding. Metacognitive strategies were identified by comparing reading behaviour and introspective reports about reading given by good and poor readers. For example, in one study (Brown, 1980) good readers were asked to describe how clear the goals of reading are and to identify important aspects of text messages. They were then asked how they control whether they understand the text and whether they are taking the correct steps. According to Underwood, when formative assessment and metacognitive reading comprehension strategies that facilitate understanding entered the reading area in 1970s and 1980s, our understanding of the nature of reading and the nature of training in reading were changed forever (Underwood, 1997).

The beginning of 21st century was marked by a rapid increase in the number of studies of educational achievement, caused by the change of the existing conceptual paradigm and clearly visible in the expansion of research studies that have largely abandoned the traditional principles of psychometric testing.

What caused this paradigm shift? One reason (although not the most important reason) for the change in conceptual approach is the increased theoretical knowledge (and, based on this, empirical knowledge) about the nature of learning processes that was developed within constructivist and cognitive theories of psychological development. It would be more accurate to say that rather than opening up the issue of the quality assessment of educational outcomes, theoretical knowledge has provided answers. Some of the issues and concerns arising from the practical application of findings derived from the external evaluation of educational achievement in order to improve teaching practices are: how could assessment results and the objectives and functions of education be harmonised, and does education justify the investment?

An analysis of the theoretical approaches that have shaped the conceptual framework of the modern assessment of educational outcomes, especially the PISA project, shows that the term “competence” is frequently used as a central construct. Competences are defined and operationalised within “conceptual pragmatism,” which defines this construct in a pragmatically relevant and scientifically plausible way (relying primarily on theoretical knowledge about the nature and structural characteristics of the knowledge developed within social constructivism and cognitive orientations).

One of the definitions of competences developed in this approach was adopted in the OECD project DeSeCo (Definition and Selection of Competencies), with which the PISA research study abuts directly. Competency is defined as the capacity of an individual to successfully respond to complex, composite requirements in a particular context through the mobilisation of psychosocial conditions, including their cognitive and non-cognitive aspects (Rychen & Salganik, 2003). In other words, competencies are seen as internal mental structures, as dispositions, or resources “embedded” in the individual. There is a wide range of attributes that are seen as components of the internal structure of competence. There is no disagreement amongst various authors about the fact that both higher-order cognitive skills (e.g., analytical or critical thinking, decision-making ability, problem-solving ability) and total or specific knowledge must be mobilised for the attainment of competent achievement (Kirsch et al., 2002; Rychen & Salganik, 2003).

The concept of reading literacy adopted in PISA relies on cognitive concepts that highlight the interactive nature of the reading process and the creative nature of the process of understanding. Cognitive scientists argue that the meaning of the text is constructed in the interaction between the text and the reader (Underwood, 2007). In this interaction, the reader brings cognitive and metacognitive strategies to work on the text, as well as previous knowledge and experience, including specific knowledge and experience in reading situations, such as the use of textual and situational incentives. The text contains certain linguistic and structural elements and addresses a specific topic, while context determines the purpose of reading and the selection of reading strategies appropriate to the text.

Reading literacy as an educational competence

The definition of reading literacy in the PISA study, similar to that in other international reading assessments, such as PIRLS (Progress in International Reading Literacy Study, in Mullis et al., 2007) and ALL (Adult Literacy and Lifeskills, in Lemke & Gonzales, 2006), emphasises the importance of reading in active and critical participation in society, thereby promoting the ability of students to read and to critically analyse information and use it for different purposes. Changes in the definition of the learning process and promotion of the concept of lifelong education have led to a broader understanding of the concept of literacy. Literacy does not only mean the skill of decoding written words and literal understanding of the meaning, which is typically mastered during the first years of schooling; literacy means merging functional and

transfer knowledge, skills and strategies that people acquire throughout their lives and through interaction in the social groups to which they belong. Essentially, this definition of literacy says that reading is not a unitary skill, but rather a compilation of processes, approaches and skills that vary depending on the reader and the type of text, as well as the goal or situation in which the text is read (Campbell et al., 2001). Based on these definitions, the PISA project has developed the following definition of reading literacy: *understanding, using and reflecting on written texts in order to achieve personal goals, develop skills and potential, and to contribute to community life* (Kirsh et al., 2002; OECD, 2010).

In other words, the concept of literacy describes the capacity of students to apply knowledge and skills in real life situations, and to analyse, draw conclusions and accurately communicate the solutions arrived at.

This definition implies a broad range of situations in which reading literacy plays an important role, ranging from an individual's aspirations, acquiring qualifications or finding a job, to less specific situations, such as meeting the challenges of modern society in order to enrich and improve one's quality of life. In accordance with the different contexts in which reading takes place, the assessment of reading literacy involves using a range of different types of texts.

Reading Research in Serbia

Assessing reading as an educational outcome does not have a long tradition in Serbia. The practice of testing achievements in the area of reading is closely related to the very few assessment studies in education. In spite of the fact that reading was defined and operationalised as an educational outcome of great importance in these research studies (and, therefore, reading achievement represents a measure of the quality of the education system), research findings have not significantly influenced the educational policy, if at all (Baucal & Pavlovic Babic, 2010). In the curriculum, reading is reduced to a correspondence between written text and speech. On the other hand, in addition to conventional tests of knowledge in the area of language (spelling, grammar, knowledge of literature, vocabulary), the first comprehensive assessment of educational achievements (Havelka et al., 1990; UNICEF, 2001) also included the measurement of reading speed and reading comprehension. Since 2000, by participating in the PISA study and developing national assessment studies, the research focus has shifted from testing isolated language skills and knowledge to complex skills that are manifested through work on the text (Baucal et al., 2007; Baucal & Pavlovic Babic, 2010; Pejic et al., 2009). Findings reported in the present paper belong to this research orientation. Operationalisation of reading

literacy and research design make the findings relevant for educational policies, and achievement in reading literacy is seen as one of the indicators of the quality of education in Serbia.

The main characteristics of reading literacy in the PISA project

In the process of the operationalisation of reading literacy, it became evident that there were three main characteristics on which the determination of reading is based: the text, the aspects and the situations. Each of these key features was further developed into subcategories that serve for the further operationalisation of reading.

Text. Until recently, a correct definition of reading would include texts written (printed) on paper. Today, it is a common, everyday activity to read a text on a screen. In the PISA 2009 study, Serbia did not participate in testing reading literacy in digital texts. Students from Serbia worked on texts that were, in terms of format, linear (continuous) or nonlinear (not continuous) and had a sequential organisation, thus demanding different approaches of the reader. In terms of type of presentation and content, texts are classified into the following categories: description (information related to the characteristics of an object – typically answers to What questions), narration (text responding to the questions such as When, and In what order), presentation (answers to How questions), argumentation (arguments and proposals are exposed, often answers to Why questions), instructions (instructions on how to do something), and exchange (text interacting with readers and exchanging information with them).

Aspects. These are, in fact, mental strategies, approaches and intentions used by the reader, classified into three main categories: access to information and information retrieval, integration and interpretation, reflection and evaluation. Access to information and information retrieval means browsing, searching, and the identification and selection of relevant information – the retrieval of information assumed relevant or the automatic understanding of the text. There is little or no interpretation. There are no gaps within the meaning of the text that need to be compensated for – meaning is evident and clearly stated in the text. The reader must recognise the importance of information or ideas. Integration and interpretation are processes that we use to build the meaning of the text. Integration refers to the establishment of a relationship (or relationships) between parts of the text. Interpretation refers to the process of building sense, based on information that is not (always) complete or explicit. It also involves developing and deepening first impressions, as well as acquiring

a more specific and more complete understanding of the text. While building the meaning of the text, the reader also formulates conclusions on information or ideas that are not explicitly given. This allows the reader to draw conclusions that go beyond literal interpretation of the text and to fill in gaps and uncertainties. For successful readers, these processes are brought to the level of automation. Reflection and evaluation – thinking about the text and evaluating its content or form of interaction – implies a reference to prior knowledge, experiences and ideas. The reader compares the facts and opinions expressed in the text with his/her own knowledge and opinions, assesses their foundation, reveals contradictions and inconsistencies, analysing arguments, evidence and refutations, and finally articulates and expounds his/her conclusions and attitudes. He/she looks for evidence in the text and pits it against evidence from other sources of information, using general and specific knowledge, but also the ability of abstract thinking.

Situation. Based on content, purpose of reading and the students' relationship with the context to which the text refers, texts are classified into four categories: personal, educational, occupational and public.

Method

Research Design

The PISA study uses the balanced incomplete block (BIB) assessment design (Johnson, 1992; NAEP, 2001). The BIB design has been developed for large-scale assessments in order to enable measurement of a broad range of competencies or knowledge, while limiting the time of participants engagement to 2-3 hours. In order to obtain reliable individual measures of different competences, a relatively large number of items needs to be used. So as to reduce each participant's time of engagement, items are organised into a number of item blocks, which are connected according to a specific scheme into booklets. Thus each booklet contains only a part of the items, chosen in such way that the content in each booklet overlaps with two other brochures. The BIB design requires the use of IRT techniques to analyse the data (Birnbaum, 1968; Bond & Fox, 2007; Lord, 1980).

Sample

The PISA sample targets 15-year-old students, regardless of the class that they are attending at the time. In Serbia, the PISA 2009 sample was stratified – schools are the first stratum and students the second. The PISA 2009 study in Serbia involved 190 schools, mostly upper secondary schools. In each

secondary school, 35 students were selected (fewer students were selected in primary schools, where there is a small proportion of 15-year-old students). The student sample in Serbia was also designed to be representative of the type of educational programme in upper secondary education. The planned sample size was 5804, of which a total of 5523 students were tested (about 95% of the planned sample). The structure of the sample by gender and the class attended by the student at the time of PISA assessment is shown in Table 1.

Table 1: Structure of the sample of students from Serbia who were tested in the PISA 2009 study according to gender and class attended at the time of PISA assessment

		Females		Males	
		Freq.	%	Freq.	%
Compulsory primary education	7 th grade	2	0.1%	4	0.1%
	8 th grade	21	0.7%	38	1.4%
Upper secondary education	1 st grade	2757	97.0%	2594	96.8%
	2 nd grade	63	2.2%	44	1.6%
Total		2843	100.0%	2680	100.0%

Instrument

The instrument for the assessment of reading literacy in the PISA 2009 study consisted of 13 brochures that contained a total of 131 items. The brochures were distributed to the students according to the spiral method (NAEP, 2001) so that between 416 and 439 students were surveyed by each of the 13 booklets.

Each item was designed to examine one component of reading literacy and particular types of texts. In addition, each item was contextualised so that it applied to a personal, social, professional or educational context. In other words, each item can be described by three dimensions: component of reading, type of text and type of context. Items also varied according to formal characteristics: closed items, complex closed items, limited open items, open items and items with a short answer.

Results

General achievements on the PISA reading scale

To what extent was reading competence developed in the 15-year-olds from different countries? Based on the data, it is possible to generate different indicators of student achievements. In the present paper, the average achievement, percentiles, distribution by levels of achievement and data on trends are analysed.

Figure 1 shows the average achievements on the PISA reading literacy scale of students from different countries in Europe. In addition to the average achievement, the data indicates the extent to which the achievements of students within each country differ. The differences that exist among students are described by percentiles (10%, 25%, 75%, and 90%).

The data show that students from Finland have the highest score ($M=536$, $SE=2.3$), which is 43 points higher than the OECD average ($M=493$, $SE=0.5$). Bearing in mind that one year of schooling, according to estimates for OECD countries, has an average effect of about 40 points (OECD, 2010), we can say that the education system in Finland supports the development of reading literacy to a greater extent than education systems in other OECD countries, as the difference corresponds to the effect of one year of schooling. In other words, when the reading literacy of students from Finland is compared to the reading literacy of students from other OECD countries one could gain the impression that the students have been educated one year longer. Since there is no significant difference in the number of years students spend in the education system up to the age of 15, this means that the education system in Finland is more effective than those of other OECD countries. In addition to students from Finland, students from the Netherlands ($M=508$), Belgium ($M=506$), Norway ($M=503$), Estonia ($M=501$), Switzerland ($M=501$), Poland ($M=500$), Iceland ($M=500$) and Lichtenstein ($M=499$) also attained average achievement that is statistically significantly higher than the OECD average.

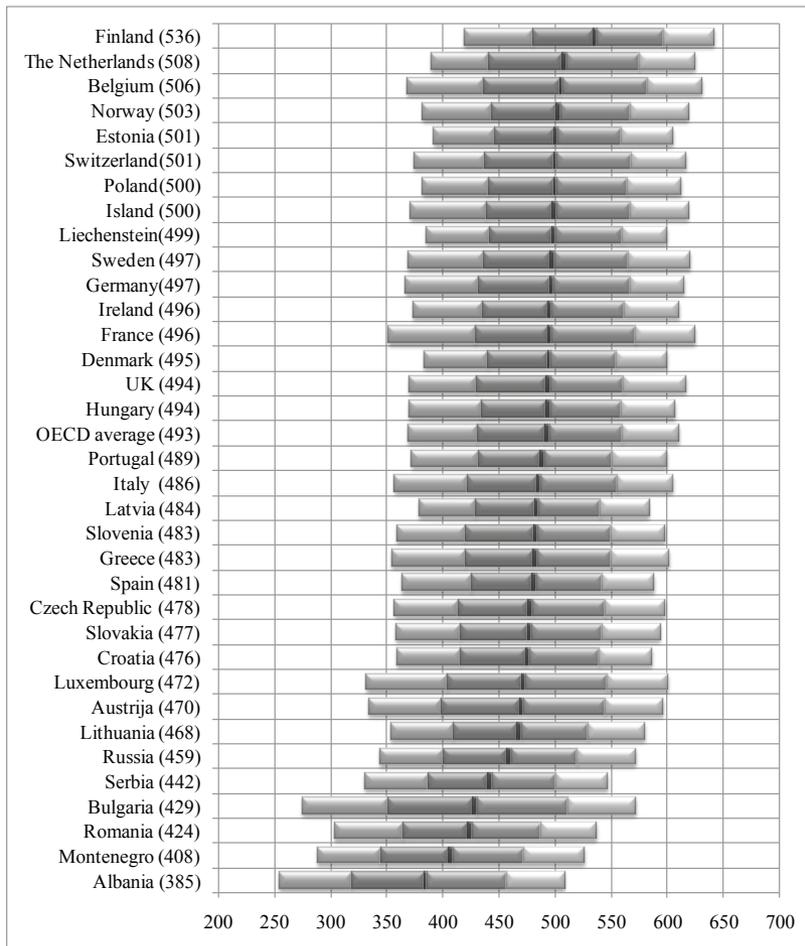


Figure 1: Average student achievements on the PISA reading scale, and student achievements on 10, 25, 75, and 90 percentile. (data for selected countries in Europe)

The average achievement on the reading scale of students from Serbia was about 442 points ($SE=2.4$). This is statistically significantly lower than the OECD average, with a difference is about 50 points, which corresponds to the effect of about 1.25 years of schooling in OECD countries. This suggests that the education system in Serbia is somewhat “less supportive” of the development of PISA reading competence compared to OECD countries.

Compared with students from other countries in the region (Table 2), students from Serbia have a similar level of reading literacy to students from

Bulgaria, and a higher level than students from Albania ($M=385$), Montenegro ($M=408$) and Romania ($M=424$), while the level of reading literacy of students from Serbia is significantly lower than students from Croatia ($M=476$) and Slovenia ($M=483$). The average achievement of students from Serbia is about 30-40 points lower than the average achievement of students educated in Croatia and Slovenia, which corresponds to the effect of almost one year of schooling.

When the trend in the reading literacy of students from Serbia is analysed, it can be seen that a big improvement was achieved between the PISA 2006 and 2009 studies (Table 2). In the PISA 2003 study, students from Serbia achieved an average of 412 points (OECD, 2004). In the next cycle, in 2006, the reading literacy of students from Serbia dropped by 11 points to 401 points (OECD, 2007). In the PISA 2009 study, however, the average achievement of students from Serbia was 41 points higher than in 2006. This improvement is similar to the effect of one year of schooling in OECD countries and is one of biggest improvements ever recorded in a PISA study. The average achievement of students from Montenegro, Bulgaria and Romania also improved between these two PISA cycles, by between 16 and 28 points. In the same period, the average achievement of students from Croatia remained at the same level as in 2006, while the average achievement of students from Slovenia decreased by 11 points.

Table 2: Average student achievement on the reading literacy scale in 2003, 2006, and 2009.

Country	2003	2006	2009	Difference between 2009
				and 2006
Serbia	412	401	442	+41
Croatia	--	477	476	-1
Slovenia	--	494	483	-11
Montenegro	--	392	408	+16
Bulgaria	--	402	429	+27
Romania	--	396	424	+28
Albania	--	--	385	--

Internal differences in student achievement within specific countries

In addition to the average achievement, it is important to take into account the differences that exist between students within each country. Here the focus will be on differences that exist in Serbia. As can be seen from the data shown in Figure 1, the lower quartile of students in Serbia achieved fewer than

388 points, which places them amongst the very low achievers, while the upper quartile of the most successful students achieved above 500 points. In addition, the lower deciles of students from Serbia fall below 330 points, while the 10% of students with the highest scores achieved scores above 547 points.

Although these differences in student achievement from the lower/upper quartiles and deciles are rather large, they are lower than those from other countries. For example, although the average achievement of students from Serbia and Bulgaria is at a similar level, the differences between students from Bulgaria are much larger than the differences between students being educated in Serbia (this is illustrated by the length of the bar for Bulgaria and Serbia in Figure 1). The inter-quartile difference in Bulgaria is about 160 points, while that of Serbia is considerably lower – about 110 points. As a result of this, the top 10% of students from Bulgaria have scores that are significantly higher than the average top 10% score of students from Serbia (572 vs. 547 points). However, when achievements of the 10% of students with the lowest scores are compared, the opposite situation is evident – low performing students from Serbia have significantly higher achievements (331 vs. 276 points).

The development of individual components of reading literacy

Since reading literacy was the central domain in the PISA 2009 assessment, data for different components of reading competence were also provided. In Table 3, data on student achievements in different components of reading literacy are presented. The data are expressed as the difference between the average achievement of students in certain components and the average achievement on the reading scale. If the difference is positive, this suggests that students are somewhat more successful in a given component, while a negative difference means that students are less successful in this aspect of reading competence. Thus the profile of the achievement of students from different countries in different components may indicate relative advantages and shortcomings of the respective education system in terms of providing learning opportunities to students to develop their reading competence (OECD, 2010).

The data from Table 3 suggest that students from Serbia were relatively successful in identifying and selecting information in the text, while they were significantly less successful in reflecting on and evaluating the texts. According to this profile, students from Serbia are most similar to students from the following European countries: Slovenia, Austria, Slovakia and Hungary. Students from the UK and Greece have the opposite profile – these students are relatively more successful in terms of reflecting on and evaluating the information and texts than in terms of identifying and selecting information. Students

from Serbia deal better with linear texts than with nonlinear texts, following the general trend in other countries. This means that students from Serbia are more successful in working with traditional texts that present information in context, while they are somewhat less successful with nonlinear texts (such as, for example, graphs, tables, diagrams, maps, forms, advertisements, etc.).

Table 3: Comparison of average achievements in different components of reading literacy in relation to the average student score on the reading scale.

	Average score	The difference between the average achievement of certain components and the average achievement on the reading literacy scale				
		Reading aspects			Different types of texts	
		Approach and finding	Connecting and interpreting	Processing and interpreting	Linear texts	Nonlinear texts
Serbia	442	7	3	-12	2	-4
OECD	493	2	0	1	0	0

Different levels of reading literacy: the distribution of students by levels

In addition to the average achievements of students, the achievements of students are also described by the percentage of students who attained each of the six levels of achievement – from the lowest level (level 1) to the highest level (level 6). Level 2 has a special significance, since it is treated as the threshold of functional reading literacy both in the PISA study and in EU statistics. Students at this level can understand and cope with only simple, familiar texts in which the important information is clearly marked and easily distinguishable. Existing studies show that young people who are below level 2 at the age of 15 will be faced with significant difficulties in terms of future education and employment opportunities (Bertschy, Cattaneo, & Wolter, 2008).

Figure 2 shows data on the percentage of students who are below level 2, and on each subsequent level of achievement. The data for the two highest levels are aggregated, as the percentage of students at the sixth level is rather small in most countries.

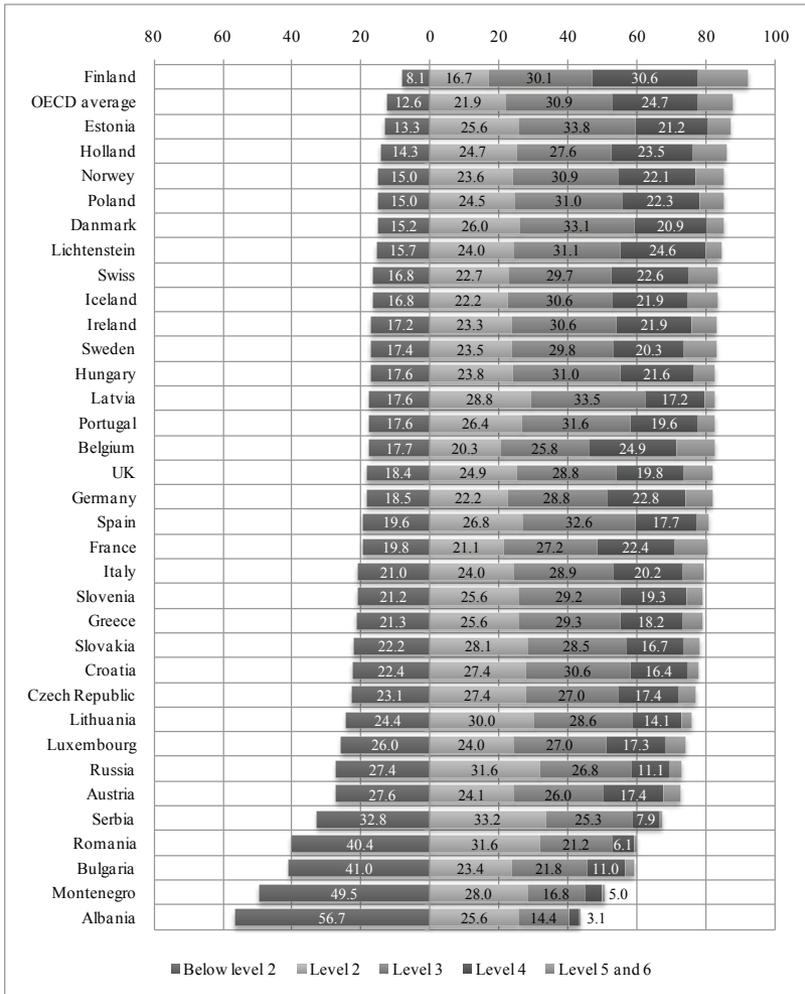


Figure 2: Percentage of students at each proficiency level on the reading scale (PISA 2009) – countries are ordered according to the percentage of students below PISA level 2

The data show a big difference in the percentage of students who may be considered as functionally illiterate in the reading domain. In Finland, which has the highest average achievement, less than 10% of students fall below level 2 in the reading domain. In OECD countries, an average of 12.6% of students remained below level 2 and are consequently treated as functionally illiterate. In Estonia, the Netherlands, Norway, Poland and Denmark, less than 15% of students can be considered to be functionally illiterate. With this percentage of functional illiterates, these countries have already achieved the European

benchmarks in education for the year 2020 (less than 15% of students below the level 2) (EU, 2009). Many European countries have between 15% and 20% functional illiteracy amongst students - Liechtenstein, Switzerland, Iceland, Ireland, Sweden, Hungary, Latvia, Portugal, Belgium, Britain, Germany, Spain and France. In some other countries, the percentage of functionally illiterate students is between 20% and 30%: Italy, Slovenia, Greece, Slovakia, Croatia, the Czech Republic, Lithuania, Luxembourg, Russia and Austria. Finally, in Romania, Bulgaria and Montenegro this percentage exceeds 40%, while in Albania it reaches almost 57%.

Data for Serbia show that about 33% of students have not reached level 2. This means that every third student aged 15 in Serbia has difficulty in understanding complex texts, which can represent a significant obstacle to their further education, where reading and understanding textbook texts is an important prerequisite to success in school learning. On this basis, it can be assumed that a third of students from upper secondary education in Serbia will have significant difficulties in continuing their education and finding job opportunities.

What is the situation with the percentage of students who managed to reach level levels 5 and 6, which represent the highest levels of reading literacy? In two countries (Finland and Belgium), more than 10% of students attained levels 5 and 6, which is the average for OECD countries – 14.5% in Finland and 11.2% in Belgium. In the following ten countries, the percentage of students at the two highest levels is between 7% and 10% (The Netherlands, France, Sweden, Iceland, Norway, Switzerland, UK, Germany and Poland), and in twelve countries it is between 4% and 6% (Hungary, Estonia, Italy, Luxembourg, Greece, the Czech Republic, Austria, Portugal, Denmark, Liechtenstein, Slovenia and Slovakia). In other countries, including Serbia, the percentage of students at these two levels is below 3%. In Serbia, only about 0.8% of students barely reached level 5 in the domain of reading literacy. In other words, if we imagine a school with 1,000 students, in most European countries there would be from 40 to 100 students with the highest level of reading literacy, while in Serbia there would only be only 8 students. These data indicate that the education system in Serbia does not manage to provide learning opportunities to the best students in order to support them in developing reading competence to the highest level.

In summarising the findings on the distribution of students from Serbia at different levels of development of reading literacy, it can be said that after almost nine years of compulsory education every third student has failed to reach the minimum level of functional literacy (level 2), whereas very few students from Serbia manage to reach the highest levels of reading literacy.

Although every third student from Serbia failed to reach the level of

functional literacy in PISA 2009, this result represents a very significant improvement when it is compared to findings from the PISA 2006 study. In the PISA 2006 study, 52% of the students from Serbia fell below level 2, which means that in 2009 the percentage of functionally illiterate students was reduced by almost 20 percentage points (Figure 3).

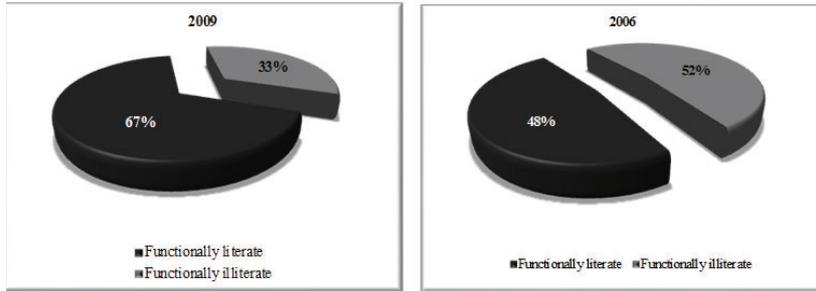


Figure 3: Change in the percentage of students who failed to reach the level of functional literacy in the domain of reading literacy. (PISA 2006 and 2009)

Based on the data presented in Table 4, it can be seen that the biggest changes between the two cycles of the PISA study are related to a decrease in the percentage of students falling below level 2. Changes related to the other proficiency levels are significantly smaller. This suggests that the education system in Serbia significantly improved learning opportunities for most struggling students, thus increasing their chances of reaching the level of functional literacy in the reading domain.

Linking this finding with the finding that the average achievement of Serbian students improved significantly between PISA 2006 and 2009 studies, it can be concluded that the increase in the average achievement occurred primarily as a result of progress made at the lower end of the reading scale. In other words, the improvement in average achievement was largely due to the fact that the education system improved its capacity to support students who are struggling the most.

Table 4: Percentage of students in Serbia who have attained certain levels of reading literacy. (PISA 2006 and 2009)

Year	Below level 2	Level 2	Level 3	Level 4	Levels 5 and 6
2006	51.7	28.1	16.0	3.9	0.3
2009	32.8	33.2	25.3	7.9	0.8
Change	-18.9	5.1	9.3	4.0	0.5

Discussion

The results presented above trigger two issues that should be considered, and simultaneously provide the basis for formulating certain hypotheses as answers to these issues. The first question is: why is the average achievement of students in Serbia significantly lower than in most OECD countries and in other European countries? Secondly: what could explain the improvement in the average achievements made between the 2006 and 2009 PISA studies?

Assuming that the PISA results mainly reflect students' experience in education, primarily in formal education (facilities, operational procedures, typical learning activities, typical patterns of interaction with teachers, textbooks, etc.), rather than differences in so-called "biological potentials," the answer to the first question should be sought in the education system. We believe that when formulating an answer to the first question it is important to bear in mind three findings: (a) the average achievement of students from Serbia is similar to the average achievements of students from Bulgaria and Romania, (b) differences in achievement between students in Serbia are smaller than in the other countries, and (c) a small number of students from Serbia reached the two highest levels, 5 and 6.

Countries (Bulgaria and Romania) that have fallen into the same group as Serbia for several cycles of PISA (Baucal & Pavlovic Babic, 2010) have three important characteristics in common: (a) these are countries in which the overall economic situation is worse than in other European countries, and therefore the investment in education is substantially lower, which is especially true for per capita funding (Eurydice, 2009), (b) educational practice is to a greater extent knowledge-oriented, i.e., students are mainly supported in the acquisition of appropriate academic knowledge and skills rather than in developing key competencies (EU, 2002; Eurydice, 2010), and (c) the dominant form of teaching/learning practice in the classroom is lecturing, while active learning, inquiry based learning and project learning are rather incidental. (Dimou, 2009; Ivic, Pesikan & Antic, 2001; Mintz, 2009; UNICEF, 2001; EU, 2007).

Consequently, we believe that the lower average results of students from Serbia may be only partially explained by the weaker economic situation. As earlier studies (Baucal & Pavlovic Babic, 2010; OECD, 2010) have shown, the relationship between the economic situation in a country and investment in education, on the one hand, and academic achievements, on the other hand, is not strong enough to be the only explanation. We assume that the main explanation for the lower results is related to the fact that teaching and learning in Serbian schools is still typically directed toward the appropriation of academic knowledge, with traditional lectures being the prevailing form of teaching and learning (Dimou, 2009; Ivic, Pesikan & Antic, 2001; UNICEF, 2001). In such conditions, there are scarce learning opportunities for the development of the key competencies and critical thinking that are typically demanded by PISA items, especially those from the highest proficiency levels. This explanation is supported by the fact that less than 1% of students from Serbia managed to reach levels 5 and 6.

In this context, another question becomes very intriguing: if teaching in schools is predominantly directed towards the acquisition of academic knowledge, and if nothing has changed significantly in this respect in the period 2006-2009, how can the remarkable achievements in improving the average reading scale literacy be explained? The results shown earlier indicate that the average achievement was improved largely due to the fact that the percentage of students attaining level 2 increased significantly. However, moving students from the bottom of the scale across the threshold of the second level was not accompanied by an increased number of students at the two highest levels.

Overall, we believe there is no doubt that students and teachers in PISA 2009 were more motivated and more engaged than they were in 2006. It is also true that the Ministry of Education, which was indifferent towards the PISA 2006 study, was very supportive and had a feeling of ownership in PISA 2009. These changes in attitudes towards the PISA study influenced schools, teachers and students to be more motivated to achieve better results. This motivational factor contributed immensely to the improvement of achievement at the lower end of the scale. Therefore, our assumption is as follows: a significant number of students who had difficulty with PISA tasks in 2006 easily gave up solving the tasks, while in 2009 these students made an effort to solve at least the tasks at the lower PISA levels. However, at the upper end of the scale motivation without adequate competencies could not improve the scores. As a result, in 2009, unlike in 2006, many more students from Serbia passed the lower limit of functional literacy, which led to an increase in average achievements but did not significantly increase the percentage of Serbian students on the 5th and 6th levels.

In order to understand the significance of the improvement in achievement, the general social context in which the students are educated also needs to be taken into consideration. Students who participated in the PISA 2009 study were born in 1993 and started their education in 2000. They are the first generation of Serbian students participating in the PISA study who did not experience a serious interruption in their education due to a lack of electricity or heating, or to strikes, regional conflicts and other events related to the turbulent 1990s. They were educated in relatively stable social conditions after 2000. Therefore, it is very likely that the stable social conditions have also contributed to a certain extent to the improvement of the academic achievement of Serbian students.

It can be concluded that the relatively low average achievement of Serbian students is very likely the result of the dominance of traditional teaching/learning practices, which encourage the transmission of academic knowledge. Furthermore, it seems that the big improvement in the reading domain is not primarily a result of an improvement in the quality of education in Serbia; it is more likely to be a result of assuring proper conditions for PISA 2009 assessment in Serbia. In other words, PISA 2009 results reveal the actual quality of education in Serbia, which was somewhat blurred by the discouraging context in the previous PISA 2006 study. Finally, it can be said that PISA 2009 results are the first baseline study of the quality of education in Serbia to be used in subsequent years for monitoring and policy purposes.

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Montenegro in the PISA Study

Saša Milić¹

⋈ Montenegro, a country that has been in transition for the last two decades, is trying intensively to restructure its socioeconomic system and reform the main social systems, such as the education system, health care, the judicial system, the social welfare system, etc. Numerous strategic documents have been adopted in the past decade emphasising the importance of making the country's abundant natural resources functional, and of making the utilisation of human resources in the country significantly more effective. In order to achieve improvements in one of the key areas of Montenegrin development, human resources, a reform of the entire education system was launched in the first years of 21st century. The processes of joining the European Union, whose fundamental principles are the free movement of people, goods, services and capital, have also significantly increased the need to raise the quality of the education of Montenegro's citizens and to improve the competitiveness of the Montenegrin workforce in the labour market. However, we believe that the results of PISA testing in 2006 and 2009 suggest that Montenegro is far from the proclaimed goals of reform in the field of education, and that for the coming years and decades considerable attention should be devoted to improvement of the education system. PISA tests should be understood in a much wider context, not only as a reflection of curricular reform and standards of verification and assessment of students' knowledge, but rather as a set of guidelines that indicate the direction in which to develop and improve the education system, so that society can really 'invest' in the education of young people.

It is a very problematic fact that from the time of testing in 2009 until April 2011, nobody in Montenegro published any technical or scientific analysis of the success, or rather failure, of Montenegrin students in PISA testing. We believe that the use of this study should be significantly increased; not for comparing academic achievements with those of students from other countries, but primarily for improving educational

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policy and defining the strategic orientation of the development of the education system in Montenegro. Therefore, the absence of analysis implies an absence of certain professional activities focused on training teachers and improving the quality of students' knowledge.

Keywords: Achievements, Assessment, Functional knowledge, Improvement, Quality of teaching and learning

Introductory analysis

Montenegro, as a country that has been in transition for the last two decades, is trying intensively to restructure its socioeconomic system and reform key social systems, such as the education system, the health system, the judicial system, the social welfare system, etc. A number of policy documents adopted in the past decade have highlighted the importance of improving functionality in the country's natural resources, as well as of making significantly more efficient use of the country's human resources. In order to improve one of the key elements in the development of Montenegro, human resources, the first years of the 21st century saw the launch of a reform of the entire education system. "With the intention of achieving more dynamic socioeconomic development, the most important factor is to ensure staff who have adequate knowledge and skills. This is an issue of national importance." (Basis for the Revision of Curricula, 2003, p. 6). EU integration processes, whose fundamental principles are the free movement of people, goods, services and capital, have also significantly increased the need to raise the quality of citizens' education and the competitiveness of the Montenegrin workforce in the labour market. However, we believe that the results of PISA testing in 2006 and 2009 indicate that Montenegro is still far from the proclaimed goals of reform in education, and that in the coming years and decades we will need to devote considerable attention to improving the education system. The PISA test should be understood in a wider context; not only as a reflection of curricular reform, scale testing and the evaluation of students' knowledge, but rather as a set of guidelines that show us the direction in which to develop and improve the education system, so that society can really 'invest' in the education of young people.

The quality of the Montenegrin education system is largely based on well educated teaching staff and their enthusiasm and will to invest their maximum in the education of children and young people. However, the social crisis of the 1980s and 1990s resulted in the disintegration of Yugoslavia, a number of

armed conflicts and wars, economic recession accompanied by enormous inflation, and the collapse of society's value system. At the end of the 20th century, Montenegro was focused on itself, its needs and how to open the way to independence. This orientation towards needs led to a better understanding of the situation in which the education system existed. Several pedagogical analysts in Montenegro, as well as international organisations and relevant educational authorities, came up with a similar list of problems in education when analysing the situation in the education system at the beginning of the 21st century: 1) the weakened role of school integration, 2) the lack of school encouragement in students' motivation for learning and continuous intellectual development, 3) the lack of linkage between schools and local communities, 4) the lack of pedagogical education for parents, 5) the lack of professional competence and motivation of teachers for professional development, 6) the lack of professional autonomy and accountability of schools and teachers, 7) insufficient professional management education for directors, 8) the lack of methodological pluralism in the educational process, 9) the low quality of knowledge and insufficient capacity for full personal, social and work engagement, 10) the inadequacy of grading, 11) the lack of an adequate system of monitoring the implementation of educational programmes" (Milic, 2010, pp. 230-231).

In order to overcome these problems of the education system, in 2001, Montenegro began an extensive process of education system reform at all levels, through the adoption of the main strategic document, the "Book of Changes." This document laid the foundation for the transformation of the education system, which should respond to the numerous challenges of today, such as globalisation, Europeanisation, individualisation and the harmonisation of education systems. In addition, the education system should contribute to the development of Montenegrin society as an open and democratic society, a society based on economic prosperity and a workforce qualified for the needs of the modern labour market, and a society that equally respects individual rights and needs. All of these strategic goals are inevitably accompanied by the construction of an education system that should provide high quality teaching and learning at all levels. In the 2004/05 academic year, Montenegro commenced the implementation of reforms in 20 primary schools, and then successively included the remaining primary schools, up to total of 161 schools. The implementation of the reform processes in the secondary segment of the education system (grammar schools and secondary vocational schools) started later, in the 2005/06 and 2006/07 academic years. "Based on the student-centred teaching approach, the education system designed and implemented must rely on all of these principles, especially on the principle of *choice according to individual*

abilities. By applying this principle, each student is given an opportunity to express his or her full potential. This way young people will be formed as responsible citizens who contribute with their activities to the democratisation of society. In order to enable students to progress according to their abilities and to satisfy their special interests, students at all levels of the system (from preschool to high school) are given choice, of a subject or part of a subject's contents, as well as of methods and forms of work, and also different strategies of learning. The aforementioned starting point of Montenegrin education reform (student-centred teaching), along with respecting the principle of individualisation, has imposed the development of curricula based on learning outcomes. This means that they contain the objectives that students should achieve, as well as standards of required knowledge. In addition to the curriculum, in order to respond to the individual needs of children, it was necessary to modify the environment in which students spend time, and to intensify the use of different methods and forms of work through carefully planned activities for students. In addition, students were offered different textbooks, adapted to the new teaching approach and to the different sources of knowledge that students will, during primary and secondary education, learn to use" (Popovic, 2010, p. 165).

Education in Montenegro has always been a focus of interest for both the professional and general public, and therefore changes in the education system were extensively monitored. Expectations of education system reform were high but seldom unrealistic. "The modern knowledge society requires the student first to understand and learn how to study throughout life. The question is how to make learning more attractive to the student and not to let it become torture and an effort, but rather a need and a source of satisfaction" (Kotri, 2010, p. 420). However, it seems that the early effects of the reformed education system have not given the expected results, and that schools in Montenegro have failed to significantly raise the level of motivation and interest of students for learning and acquiring high-quality and functional knowledge. It also appears that the initial enthusiasm of teachers for introducing changes has decreased significantly, and that we are now at a turning point in the implementation of reforms, faced with the more difficult task of re-motivating teachers to implement reform solutions and raise the quality of the teaching process.

Achievements of Montenegrin students in the 2009 PISA test

A basic analysis of the results of testing conducted in 2009 indicates that Montenegrin 15-year-olds are significantly below the OECD average, which is

about 500 points out of a maximum 600. Montenegrin students' underachievement is more significant compared to leading countries: Shanghai-China, South Korea, Finland, Hong Kong, China, Singapore, Canada, New Zealand and Japan.

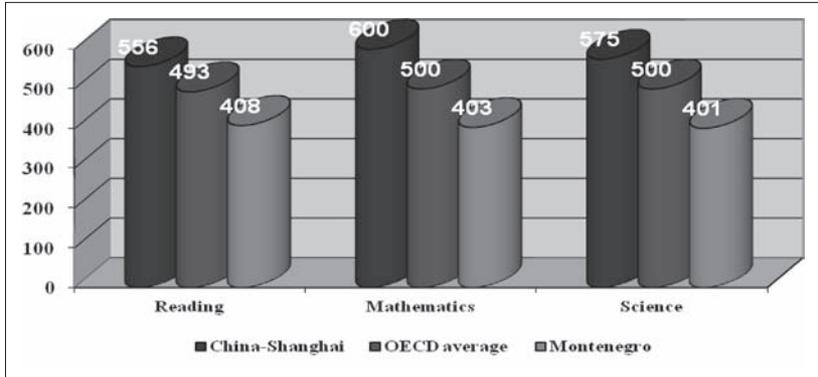


Figure 1: Achievements of Montenegrin students in the 2009 PISA test.

We believe that the results obtained by students from the best ranked countries could largely be the result of education policies that are substantially aligned with the statement that “the school, according to the revolutionary changes taking place around us, would have better results if dedicated to the equally risky, and perhaps equally quixotic, ideal of preparing students for coping with a changing world in which they will live” (Bruner, 2000, p. 9).

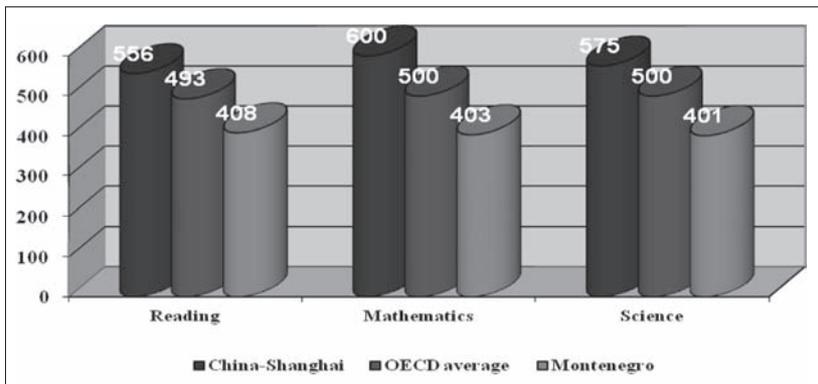


Figure 2: Results of Montenegrin students in PISA testing in 2006 and 2009.

Source: OECD studies from 2006 and 2009 (www.oecd.org/document)

Although the number of countries participating in PISA testing in 2006 (57 countries) increased in the evaluation of students' academic achievement in 2009 (65 countries), we must conclude, with dissatisfaction, that Montenegrin students were ranked significantly worse than in the previous test. Thus, Montenegro decreased from 51st to 54th place in the reading literacy test, and from 49th to 54th place in the mathematics test, while the largest decline in terms of achievement was seen in children's tests of science, where there was a decrease from 48th to 55th place.

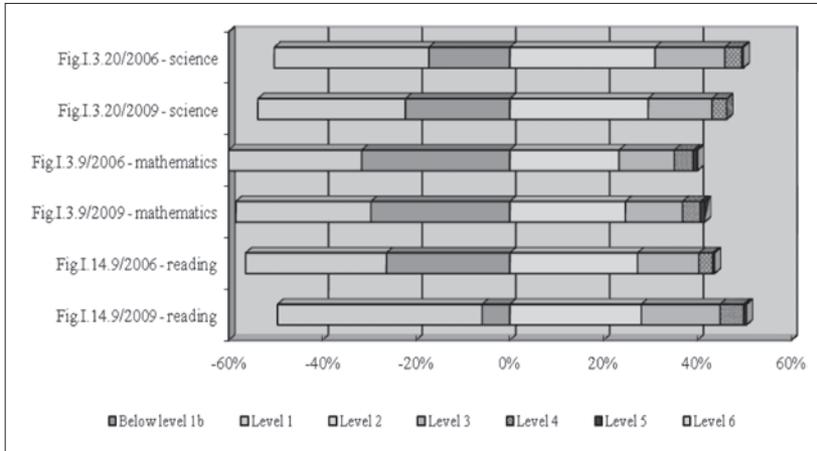


Figure 3: Summarised results of Montenegrin students in 2009 and 2006 in tests of reading literacy (fig.I.14.9), mathematics (fig.I.3.9) and science literacy (fig.I.3.20).

The special significance of the tests is reflected in achievements in reading literacy, due to the fact that reading literacy has a significant direct impact on overall student performance, on achievement in other subjects (apart from the native language), and on creating reading culture and training students for lifelong learning. "In addition, within certain tasks in the reading literacy of students they are asked to present their own opinion. Naturally, the question of whether schools in Montenegro provide sufficient space for students to express their own opinions, irrespective of the subject, with input to critically reflect on, express emotional experiences related to some content or text and to evaluate them. It is therefore necessary to pay special attention to reading, but also to the development of critical thinking and the child's speaking; for example, by raising adults' awareness of the importance of reading for the psychosocial development of children, by providing better access to books for children, by

developing reading habits and motivation for reading, and by ongoing support to children in developing skills for reading literacy” (Petričević, Backović & Ostojić, 2008). In the light of recognition of the importance of reading literacy for the overall intellectual development and academic achievement of students, the results that Montenegrin students achieved in the 2009 PISA test were very discouraging. In terms of the different categories of questions in the reading literacy test, Montenegrin students achieved the following results (Fig.I.2.20/2009 - access and retrieval of information in a text already read; Fig.I.2.23/2009 - the integration and interpretation of a text already read; Fig.I.2.26 / 2009 - reflection and evaluation of a text already read; Fig.I.2.32/2009 - the quality of reading in a continuous text; Fig.I.2.35/2009 – the quality of reading in a non-continuous text):

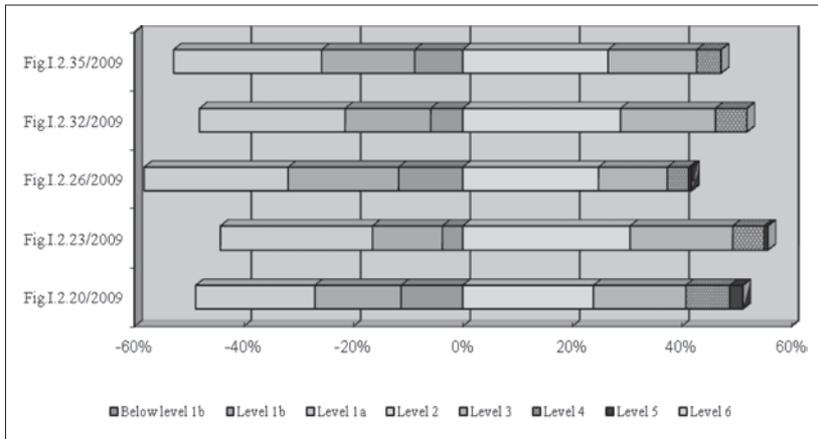


Figure 4: Achievements of Montenegrin students in the reading literacy test.

According to OECD classification, the achievements of Montenegrin students in the reading literacy test are in a category significantly below the OECD average, with the achievement of 408 points out of a maximum of 600 points. A significant increase in achievements in the 2009 reading literacy test was achieved by students from Turkey, Chile and Mexico, all of whom had been ranked behind their Montenegrin peers in previous tests. At the 2009 test, all EU member states and some South American countries, such as Uruguay, Trinidad and Tobago, Colombia and Brazil, achieved better results than Montenegro. The reading literacy test showed that enjoyment in reading is an important factor for the improved achievement of Montenegrin students. Accordingly, those who enjoy reading scored the highest average of 457 points, while those who enjoy reading less

scored an average of 379 points. The amount of time spent reading also determines achievement. Those students who read for 1-2 hours per day achieved an average score of 427.8 points, while those who read up to half an hour per day achieved an average score of 383 points. Daily online reading also has a positive effect on the achievement of Montenegrin students in the reading literacy test. Students in the top quarter in terms of time spent reading online achieved an average score of 416 points, while those from the lower quarter, who read online very little, had an average score of 379 points. In terms of the relationship between awareness of the importance of links between understanding and remembering information, on the one hand, and achievements in the reading literacy test, on the other hand, it has been shown that Montenegro is in the category with countries whose students have a below average developed awareness of the importance of such strategies (compared to the OECD average), which resulted in below average achievements in the test (mean index -0.28). Significant disparities appear among Montenegrin students in this regard: those from the upper quarter have an average score of 423 points, while those from lower quarter have an average score of 388 points. There is a negative correlation in terms of students' awareness of the importance of effective strategies in summarising information and achievements in the reading literacy test. In this regard, Montenegro was in the same group as countries such as Indonesia, Jordan and Kazakhstan (which is common), and there is a very strong negative relationship between below average achievement in the test and a below average level of student awareness of information summarising strategies (mean index -0.57). It is with regard to these grading criteria that one of the most drastic differences among Montenegrin students is evident, with those in the upper quarter achieving an average score of 457 points, while those in the lower quarter have an average score of only 378 points. Knowing that 40 points in the test represent about the same quantum of knowledge acquired in a school year, we can conclude that the underdeveloped strategies of summarising information result in students falling behind in the reading literacy test to the extent of more than two school years. The inefficiency of the storing and mechanical memorisation of material has long been recognised by educational theory and practice, and the achievements of Montenegrin students in this test confirm this. In fact, it turned out that Montenegrin students achieve a negative score of -14.5 points per unit of storage; put simply, the more students learn through mechanical memorisation, the worse their achievement in the test becomes. A significant departure from the achievements in relation to the OECD average in the reading literacy test emerges when it comes to girls from Montenegro, who are in the large-scale category. Those who read tests give us the right to question the objectivity of statements about enjoyment in reading, as, given the large percentage of those who enjoy reading, one

would expect accomplishments in the test to be significantly higher. Sexual Gender differentiation in this respect is also expressed in Montenegro, and Montenegrin boys are significantly closer to the OECD average of 71.5% of those who enjoy reading, while girls far exceed the Montenegrin average, with 87.3% of them stating that they enjoy reading. Such statements by Montenegrin students give quite an unrealistic picture of themselves and their learning process. There are similar discrepancies in terms of links between the socioeconomic status of students and the enjoyment of reading. Thus the lower quarter of Montenegrin students according to socioeconomic status enjoy reading in 76.5% of cases, while the upper quarter by this criterion enjoy reading in 80.9% of cases. The PISA study has shown that in Montenegro there is a positive correlation between the socioeconomic status of students and income inequality, with this increase in disparity resulting in poorer achievement of students, a fact that was shown deeply and broadly. Girls represent 45.9% in this category (OECD average 49.5%), while Montenegrin boys from this category are very close to achieving the OECD average with 38.4% (OECD average 38.7%). According to the results of the student questionnaire, 79.2% of students in Montenegro read for enjoyment, which is significantly above the OECD average of 63%. Despite their below average achievement in reading literacy, the percentage of variance in reader achievement related to various aspects of family heritage (such as level of parental education, cultural heritage and the number of books at home, resources for home education, wealth, single parenting, family immigration status or a combination of these aspects) is significant and could affect an almost 20% higher achievement if these aspects were positive. Employment of the students' mothers emerged as an important prerequisite for improved success in reading literacy tests, as students whose mothers work achieved significantly better test results in reading literacy (428 points).

An interesting result of the PISA study indicates that the location of schools in Montenegro does not have a significant influence on the reading literacy of students. The average achievement of students in towns and villages with fewer than 3,000 inhabitants was around 390 points, while the average achievement in Podgorica, Montenegro's only city with more than 100,000 inhabitants, was about 413 points. Although there certainly is a difference, it is not as large as is often claimed by the Montenegrin professional community. According to the research criteria, Montenegro belongs to a small group of countries, such as Sweden, Norway, Estonia etc., where the range of student achievement between villages and towns is relatively small. The biggest gaps in the achievement of urban and rural students are in Hungary, Bulgaria, Kyrgyzstan and Panama, where the difference is more than 80 points, while the OECD average is 40 points in favour of city children.

Analysis of the possible failure of Montenegrin students

A common thesis in pedagogical theory in the countries of Central and Eastern Europe is that the system of *teacher education* in post-socialist countries was one of the most traditional and conservative systems, and that reform was not easy undertaken. In the PISA tests, this was shown to be only partly correct. For many decades, teacher education in these countries was oriented only towards lectures, the frontal method of work, preparing students for formal and rather rigid assessment of student achievement. The focus was on students' academic achievements to a significantly greater extent than in the interactive process of teaching and learning, and the results that students of different countries in this group achieve are very high; for example, in the reading literacy test of students from Estonia they achieved 13th place, while students from Poland achieved 15th place. It should also be noted that a significant number of countries from this group, including Hungary, Latvia, Slovenia, the Czech Republic and Slovakia, are within the range of the OECD average, or only slightly below it. In the Montenegrin system of higher education for teachers, we have made "the most massive changes regarding higher education teaching staff, and the foundation of the study programmes of pedagogy and psychology at the Faculty of Philosophy. The education of teaching staff has been raised from a high to a higher level of education (VII degree) in order to properly respond to the continuously growing needs of early education and further professional education for working with preschool children. Of special significance in the further development of the education system of Montenegro is the foundation of pedagogical and psychological studies, as key areas in the higher education of teaching personnel... Significantly fewer changes and less innovation have been applied to the higher education of teachers and subject teachers (languages, science, history, geography, art), and we can speak more of the rearrangement of the old curriculum in the education of teachers, rather than of substantive changes and improvement. A particular problem is the lack, or complete absence, of the pedagogical-psychological and didactic education of expert teaching staff in specialised teaching" (Milic, 2010, p. 233).

Many reform documents have noted that not enough attention is paid to initial motivation in the education of young people, and that they are often discouraged; however, we can conclude that the educational process in Montenegrin primary schools is still burdened with anachronous organisation, a lack of pedagogical stimulation of students and still *very present excessive workloads*. The main disadvantages of the curriculum in the Montenegrin education system are: the lack of methodological pluralism in the educational process; the

inflexibility of the overloaded curricula; the lack of linkage between knowledge and the neglect of multi-disciplinary and interdisciplinary knowledge; the low level of knowledge and insufficient capacity for complete personal, social and work engagement; the lack of an adequate system of monitoring and implementation of curricula; and the lack of adequate material and technical conditions for the implementation of programme requirements. So far, no extensive scientific research on the effects of the curricular reform has been undertaken, and it is therefore difficult to state with any sureness the extent to which the above mentioned disadvantages have been removed. However, the results of the PISA test still suggest that Montenegrin teachers are still not inclined to accept the simple pedagogical strategy that the goal of teaching is not the breadth but the depth of the material. “The curriculum of the reformed primary school, compared to the unreformed curricula, set different, modern educational trends and developments in the world. Three cycles were introduced - at the end of the third, sixth and ninth grades - and the objectives at the end of each cycle were defined. Through educational programmes, horizontal and vertical representation and connectivity of key areas was provided, sometimes as individual curricula and sometimes as thematic units related to the existing curriculum. Whenever it was possible, correlation between subjects and alignment and positioning of intersubject areas was built. The curriculum is designed to leave enough space for the required elective courses through which students meet their interests in certain fields. In parallel with changing curricula, new textbooks were made in order to follow the new curricular reform and solutions, offering, for the first time for some subjects, especially in lower grades, manuals for teachers with methodological recommendations for the implementation of the programme provided topics in the textbook” (Jacimovic, 2010, p. 64). The basis of nine-year primary education is partially an open type of curriculum, unlike the closed curriculum that was used in Montenegrin schools before, and there has been a transition from teaching to a target curriculum where learning outcomes are important, which represents one of the most important innovations of the reformed primary school. Programmes do not contain ‘lessons’, but rather topics that are conceived according to defined standards of knowledge and skills, to which the teacher must lead students using a more flexible system of learning, teaching and access, leaving the teacher room to choose the way, methods and assets that will lead students to the defined standard. The new reform solutions have changed the role of teachers in the learning process, but they have also particularly redefined the role of students; the student is transformed from a passive listener to an active participant in the process of acquiring knowledge, a role that the new programmes clearly recognise through

the envisaged activities of students. Teachers therefore become more active in the preparation of materials for teaching and take on the role of ‘moderators’ leading the children to achieve the standards. All of this is planned by the reform documents, but it seems that many questions still remain open regarding the curriculum. Although the new curriculum recommends vertical and horizontal curriculum correlation, the reality is that the Montenegrin educational process is often characterised by the absence of an interdisciplinary approach to knowledge and, consequently, the inability of Montenegrin students to combine material from different subject areas.

Dysfunction and a lack of solidity in the knowledge of Montenegrin students is certainly one of the key challenges of the Montenegrin education system. We believe that the education system still ‘suffers’ significantly from a lack of clear linkage between school knowledge and real life, i.e., the application of acquired knowledge in everyday situations. We can completely agree with the attitude of the famous German pedagogue, Hartmut von Hentig, who on a list of ten deficiencies in reform states that “school reform must go further (i.e., to be more radical) ... and the school has to become for children a place of life where you gain experience relevant to the existence of this world” (Hentig, 1997). We believe that in the case of curricula in Montenegro this remained a major problem after the introduction of the new reform solutions. In fact, PISA tests show that the Montenegrin curriculum still pays very little attention to the applicative value of knowledge, i.e., the adoption of functional knowledge.

There is *an incapacity for critical thinking*, as in the learning process the development of Montenegrin students’ problem solving ability is not encouraged. This claim is fully supported by surveys conducted among students after the PISA test, as well as later impressions of students about their achievements. The students themselves assessed that their achievements in the PISA tests were unsatisfactory. In their opinion, the results are low because in primary school they learned mostly by heart; furthermore, they have not learned to use logic and they are generally taught “unnecessary things”, with an emphasis on theory rather than practice, especially in the subjects of physics, chemistry and biology. The general students’ conclusion about the failure in PISA testing is contained in their attitude: “it turned out that we have been taught incorrectly.”

The process of training teachers to implement reform solutions in the education system took place in parallel with the introduction of changes in educational institutions in the 2004/2005 school year. However, despite the fact that in the period from 2000 to 2008 some 5800 teachers and 200 directors of educational institutions were trained and over 350 seminars were organised, we believe that the reasons for the unsatisfactory achievement of Montenegrin

students in the PISA test can be sought in the *insufficient and inadequate training of teachers*. First of all, we believe that the training period was inadequate, with a large number of teachers only undertaking one or two three-day training sessions. The competent ministry departed significantly from its own initial determination on the importance of the professional development of teachers. All of the relevant studies on the effects of professional development suggest that “only the persistent, consistent and long-term application of innovation efforts in the education system can lead to its permanent foundation and acceptance by the teaching staff and systems in general” (Milic, 2002). Despite these findings, the ministry withdrew the intensive professional training of teachers and the entire initial training for the implementation of new, reform solutions was reduced to only three days of training. Even today, the ministry has almost completely abolished external professional development in the form of seminars, instead introducing so-called internal training at the school level, which means interpersonal teacher training in the school and peer learning. The reasons for the lack of preparedness of teachers to improve teaching can be found in a significant number of conservative teachers who do not accept change. “A significant number of teachers have an evident traditionalist-conservative consciousness that is sceptical towards any innovation and change in the existing situation” (Damjanovic, 2001). The unwillingness and lack of openness of the teaching staff regarding the changes is shown by the following research findings: “Teachers of elementary school education and learning are treated primarily as a phenomenon and the monopoly of childhood and adolescence, but not adulthood and life in general” (Todorovic, 2002). Besides the above mentioned problems related to the quality of teachers, it is important to emphasise the inadequate financial motivation of teachers. Although, as early as in 2005, the relevant ministry adopted the “Regulation on Improved Teaching Positions,” whose primary purpose was to expedite the improvement of teaching practice in schools and to identify those teachers who invest considerable efforts in their own professional development and quality of teaching, the application of the rules has not occurred in practice. The ministry justified the non-application of this regulation with various pretexts related to the need for its further treatment; however, it seems that the main reason was insufficient recognition of the importance of motivating teaching staff on the part of the ministry, as well as a failure to provide funding to ensure an increase in teachers’ salaries in line with the revised titles (teacher-mentor, teacher-counsellor and teacher-researcher). In addition, it should be noted that “the material position of teachers seriously affects the quality of work and the commitment of teachers to introducing innovations in their work. This is reflected in the

quality of teaching and learning. Low salaries are a serious obstacle to the implementation of the planned reforms” (Damjanovic, 2001). Although this assessment of the Deputy Minister of Education and Science of Montenegro dates back to 2001, the facts indicate that the level of teaching staff salaries is still not significantly higher, and that this type of obstacle to the implementation of reform solutions is still significant. In addition to the above, it should be noted that there is an almost complete lack of training sessions or minimal training of teachers in advanced elementary school classrooms and in secondary schools for the application of the principles of interactive teaching and the development of critical thinking in students.

As one of the reasons for the unsatisfactory success of Montenegrin students, the responsible personnel in the Examination Centre of Montenegro also state a *lack of motivation for testing*. Given that the PISA test is not obligatory in terms of the formal assessment of each student individually, and that it has no impact on overall success in school, it was noted that some students have an insufficiently serious attitude towards PISA testing and other forms of external tests that do not have direct consequences for formal assessment. It is particularly important to draw attention to the negative trend in the Montenegrin education system in terms of priorities. Specifically, the relationship of Montenegrin students towards the PISA test clearly indicates that students absolute priority is their grade, not their knowledge; accordingly, testing with informal effects on individual student achievement and assessment does not attract their attention. In view of this possible cause of the poor results of Montenegrin 15-year-old students in international testing, we believe that it can be concluded that there is an absence of national/state consciousness amongst students and a low awareness of the need for the quality presentation their own country through better achievements in PISA testing. It should be added that the promotional campaign about the importance of PISA testing is relatively limited. In fact, it seems that, apart from the Examination Centre of Montenegro as a referent institution for PISA testing, other institutions of the system, especially educational institutions, have done little to promote the importance of PISA. Students themselves often state that they were not prepared for testing at all; nobody worked with them on preparation for testing seven days prior to the realisation of the test. One of the common opinions of participants about the reasons for the failure in PISA testing is that this generation of young people are only concerned about how to finish school, regardless of the quality of knowledge acquired and regardless of what awaits them in the future with such superficial knowledge. An observation of the responsible personnel from the Examination Centre of Montenegro on the implementation of PISA tests in

one high school clearly indicates a very low level of student motivation: it was noted that in the school over 50% of the students opened up the tests, looked at them, concluded that they were too difficult, and 15 minutes after the test began handed the test papers back having filled in almost nothing. The PISA test is not the only example of the lack of motivation of students to acquire knowledge; the numbers of justified or unjustified absences from school indicate a trend of increasing student absence from school, especially from natural sciences and mathematics classes. Responsible personnel from the Examination Centre of Montenegro attribute the lack of students' interest in achieving better results in the PISA test to their being unaccustomed to the use of standardised tests. In fact, it turned out that 37% of Montenegrin schools do not use standardised tests of knowledge, while this percentage in countries with better success in PISA tests is below 20%. We largely agree with the view of the Austrian education theorist, Liessmann, who emphasises that "children whose reading skills are weak eloquently lamenting in this way after each PISA test does not improve reading; what is needed is 'motivation' and self-regulated learning, and in some schools 'motivation' has become a school subject. Probably in this class you learn how to be motivated for nothing. It is frightening that these concepts of practical pedagogical nihilism do not scare anybody" (Liessmann, 2009, p. 31). However, we believe that Montenegrin students' motivation to acquire knowledge in various fields is at an unacceptably low level.

The formalisation of continuous assessment in the regular teaching process is undoubtedly one of the major causes of failure in PISA testing. In fact, for over a decade there has been a tendency towards extremely superficial and unfounded assessment of student academic achievement in the education system. According to the formal success of Montenegrin students, Montenegro should be drastically better ranked in PISA testing, because all generations have a high percentage of excellent students, and it is not rare for this percentage to exceed 50% of the total population. The number of Luca 1 (all excellent grades in primary education) and Luca 2 (all excellent grades in primary and secondary education) student awards handed out indicates that Montenegro should be ranked significantly better than it is in international testing. This clearly shows very little predictive value in assessing the objectivity of the Montenegrin education system.

Pilot projects of inclusive education in the education system of Montenegro have been implemented in 2004 preschools and about 10 primary schools. Although the results of the implementation in these educational institutions are satisfactory, we believe that *the achievement of students with disabilities is significantly below average*, and this is reflected in the overall achievement of

Montenegro's 15-year-old children in PISA testing. In fact, there are significant problems with the dissemination of the idea of inclusive education in the entire education system, especially in the advanced grades of primary and secondary schools. The reason for this situation lies primarily in the lack of training of teachers for accepting children with special needs, and the insufficient training of teachers for democratisation in the educational process and for respecting children's rights, as well as the fact that in many situations the relevant ministry has not complied with the needs of educational institutions that have children with special needs in terms of the adaptation of school buildings, thus limiting the number of classes and educational groups in which there are children with special needs. This view is confirmed by findings of the Bureau for Education indicating a lack of preparedness of teachers for inclusion. "Although most teachers agree that the new curricula is completely adapted to the age and abilities of individual students, nearly one fifth of them believe that they do not provide enough opportunities for the inclusion of children with special needs in education. One of the main causes of this discrepancy can be found in the fact that so-called individual educational programmes have not yet become a regular practice" ("Analysis of teaching goals and...", 2006). We have also observed a negative trend of teachers giving positive grades to students with special needs even though their achievements do not warrant such grades, a practice that teachers employ in order to avoid being subject to criticism.

In the Montenegrin education system, the issue of the *education of gifted children* is one of the least examined fields of pedagogical and psychological work, and it is a question to which little attention is generally paid in educational institutions. Therefore, it is no surprise that in PISA testing a very small percentage of Montenegro's 15-year-old students managed to pass level 2, clearly indicating a lack of continuous and systematic work with gifted students. We believe that some progress could be made in this area if the responsible personnel from the Bureau of Education of Montenegro, as the key institution for the creation of curricula, were to implement the planned review of standards in knowledge and examine whether current standards of knowledge really encourage students to develop a higher level of thinking.

The reform of the education system and new legal solutions in the field of education have sought to overcome the problem of *the number of students per class*; the maximum number of students per class is 30, and in exceptional cases as high as 32, while the law does not define the lower limit, i.e., the minimum number of students in the classroom. "Almost all of the basic principles of the educational reform in our country are the basis for the introduction and true respect for the individualisation of the educational process. Applying the

principles adopted, starting from *the principle of democratisation of the system*, including increased participation of local communities, citizens, their associations and parents in all educational change and its direct impact on the performance of schools and the educational process, through *equal opportunities for all*, according to which countries must guarantee equal rights to education for every individual regardless of gender, social and cultural background, religion, national origin, physical and mental constitution, etc. over *flexibility*, which implies that the system as a whole must be flexible, particularly regarding curricula and their openness, over *interculturalisation* as a way to prepare young people to live in a multicultural society, as well as training for the respect of values such as tolerance, peace, religious, racial and all other differences, provides the basis and creates an obligation for the introduction of individualisation in the teaching process” (Popovic, 2010, p. 171). Due to the objective impossibility of implementing the regulations and the evident lack of school space, as well as the total number of new school buildings, the legal imperative is often not respected and the number of students in major urban areas frequently exceeds the limit, reaching as many as 33-35 students per class, and sometimes even more. Such a large number of students in the class simply prevents quality work with all teachers and students, raising questions about the applicability of individualisation in the educational process, as one of the basic principles outlined by strategic reform documents.

Final reflections

The process of reform in the Montenegrin education system was launched in 2000/2001, and it should be noted that the main reform documents, such as the “Book of Changes” and the “Basis for the Revision of Curricula,” are indisputably good quality strategic documents that are still topical. However, it appears that not enough has been done regarding the operational goals and objectives outlined in these documents, and that in the live teaching process we can still see the old dysfunctional elements of the educational process, with fewer elements of modern, interactive teaching being evident. In order to improve the quality of students’ knowledge in the Montenegrin education system, and to achieve better results in the next PISA tests, the relevant institutions plan to publish a PISA 2009 National Report with recommendations for education policy makers, which should contain analysis of the student questionnaire and the school questionnaire, as well as analysis of student achievement in reading literacy, mathematics and natural sciences. Additional training is also planned for teachers working with tasks tested in PISA tests, with an emphasis on science and mathematics

literacy. This will be supplemented by public campaigns regarding PISA testing, in order to raise the awareness and motivation of students, teachers, schools and society at large about the importance of this test (Jacimovic, 2010). According to representatives of the Bureau for Education, in the future, special attention should be focused on setting new goals for the process, insisting on procedural knowledge, along with the development of higher levels of abstract and critical thinking. Responsible personnel will be monitoring the system of schools, providing an external evaluation of each school once every four years, while leaving room for an internal evaluation at the school in the interim. However, according R. Novovic, an adviser from the Bureau for Education, the large time interval in external evaluation represents a large space for the unsatisfactory work of teachers and schools in general. Although the educational public emphasises that the results of the PISA test can serve educational policymakers and provide good indicators for assessing the quality of the education system, of concern is the fact that from testing in 2009 until now, April 2011, Montenegro has not published any technical or scientific analysis of the success, or rather the failure, of Montenegrin students in PISA testing. We believe that the use of this study should be significantly increased; not for comparing the academic achievements with students from other countries, but primarily for improving educational policy and defining strategic orientations for the development of the system in Montenegro. The absence of analysis implies the absence of certain professional activities focused on training teachers and improving the quality of students' knowledge.

One of the most important findings of PISA testing in Montenegro that should attract the attention of educational policy makers is the achievements of students who have attended preschool education. Montenegrin students who attended preschool education for between one and three years have average test results in reading literacy in the range of 516 to 521 points, while those who were at kindergarten for up to one year achieved results ranging from 496 to 505 points. Both of these results are equal to, or even above, the OECD average. This is a very good result, and it is encouraging in terms of the further endeavours of Montenegrin students to increase the level of knowledge acquired in the Montenegrin education system. It certainly provides a clear signal that the relevant authorities in Montenegro should do significantly more in the area of children in preschool education, as the coverage so far is around 27-28% of the total population of children aged from 1 to 6 years.

We believe that the argument put forward by representatives of relevant institutions (the Ministry of Education, the Examination Centre, the Bureau of Education) that the PISA tests so far have not included students who attend classes in the reformed educational process is difficult to support, and is simply

an attempt to justify the low academic achievement of 15-year-old Montenegrin students. Given that the implementation of the reform started in the 2004/05 school year, it should be noted that by now all teachers (class and subject teachers – first to ninth grade) should have been included in the professional development of institutions outside schools, as well as in professional development at school level. This fact is confirmed by representatives of the Bureau for Education, the institution responsible for the professional development of teachers. In addition, the argument (or ‘excuse’) given is unacceptable due to the fact that in schools a subject teacher usually gives classes in different grades, from the fifth to the ninth grade; it therefore seems completely illogical to claim that in the fifth or sixth grades of primary school teachers are working to significantly improve the quality of development, including critical thinking, the quality of interpretation of knowledge, etc., while in the eighth and ninth grades (grades that provided the sample of 15-year-old students for PISA 2009) work takes place in an old-fashioned and conservative manner, a way that leads to passivity and students memorising material, resulting in the significantly low rating of Montenegro in the PISA test. We also believe that this argument is largely untenable due to the fact that school is a living organism that cannot simply be divided by a ‘Berlin wall’ into a reformed and unreformed part, and it is very unrealistic to claim that in one segment of primary school one can expect significantly better results, while in the second segment we have very bad results confirmed by PISA testing. The frequent opinion of representatives from relevant institutions who emphasise that it is not realistic for Montenegrin teachers to change the entrenched traditional mode of teaching ‘overnight’ and start working in a new, innovative way, is very serious and worrying. It seems unacceptable to refer to the period from 2001 to 2011 as ‘overnight’. This argument further loses weight in view of the fact that most teachers now working with Montenegrin 15-year-olds have undergone some form of training for the implementation of reform solutions by working with students in lower grades of the third cycle (grades 7-9).

The systematic and long term view is that the failure of Montenegrin students in the PISA test has important implications for all segments of the education system, particularly at the secondary and higher education levels. The fact that Montenegro has substantially implemented the Bologna Declaration and its higher education system has been aligned with the basic ‘Bologna’ education principles will not be enough in itself to provide quality in higher education staff. It is unrealistic to expect that Montenegrin universities will have high-achieving students to enrol in light of the poor results in the PISA tests in 2006 and 2009. Poorer knowledge gained at lower levels of the education system simply cannot be compensated for at the university level. This will inevitably lead

to a lower level of knowledge of Montenegrin university graduates, and consequently a lower rating of higher education degrees obtained at Montenegrin universities. This trend will have a direct negative effect on the mobility of students and teachers, as well as negative consequences in terms of the employment of university educated people in Montenegro.

The state of reforms in the past, which was a condition that covered the education system over a period of several years, is now becoming a permanent condition. Due to the fact that “there are three indisputable facts on which education must rely in the world today, at the beginning of the 21st century: the growth and strengthening of the multicultural movement, the global perspective of world problems and the stunning speed of overall technological development. All three of these facts change the nature, structure and objectives of education systems in the world” (Herrera & Mandić, 1989).

The social changes that emerged from the disintegration of former Yugoslavia - wars in neighbouring countries, the enormous increase in the refugee population (which at one point was close to 20% of the total population of Montenegro), drastic economic decline, etc. - have caused significant changes in the system of social values and the general social devaluation of moral norms. Accompanying this, there has been a process of debasement in values of knowledge, and the results of the PISA tests, unfortunately, support the idea that knowledge is still ranked very low on the scale of social values in Montenegro.

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A Case Study of Albania's Participation in PISA 2009

ALFONS HARIZAJ¹

≈ The paper presents a view of the results and progress of Albania in the Programme for International Students' Assessments 2009 (PISA 2009). The overall goal and objectives of PISA are to offer support and expertise in the field of the evaluation of educational development factors in Albania. One of the methods successfully used for monitoring the achieved progress during the given study period was the estimation and comparison of results with the results of previous PISA participations. A broader comparison of these statistics with those of other PISA participants in the Albanian region provides a real picture of the situation, showing the progress Albania has made and indicating how effective Albania's educational policies are.

Keywords: Gender differences, Learning outcomes, Main domain in PISA, PISA assessments, Student performance, The socioeconomic environment,

Introduction

Since 1990, changes and reforms have been implemented in the Albanian education system. One important reform was a new evaluation system for primary school and high school through national exams. Such exams are standardised and are performed all over the country at the end of primary and high school education. As the most important international assessment institution, PISA assessment participation makes a contribution to, and is part of, Albanian system reforms.

At the end of primary education (nine-year education), all Albanian students sit two exams in Albanian language and mathematics. The comparison of these two final course results with students' results in PISA international assessment has been useful and important in interpreting and analysing

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achievements, and even more so in evaluating the effect of changes undertaken in students' education at primary school level.

Albania has participated in PISA 2000 and PISA 2009, and will again be one of the participants in PISA 2012.

Participating countries and Albanian participation in PISA 2009



Figure 1: Map of countries participating in PISA 2009.

Countries participating in PISA 2009 - OECD (Organisation for Economic Co-operation and Development) countries are:

- | | | |
|-------------------|-----------------|---------------------|
| 1. Australia | 13. Hungary | 25. Poland |
| 2. Austria | 14. Iceland | 26. Portugal |
| 3. Belgium | 15. Ireland | 27. Slovak Republic |
| 4. Canada | 16. Israel | 28. Slovenia |
| 5. Chile | 17. Italy | 29. Spain |
| 6. Czech Republic | 18. Japan | 30. Sweden |
| 7. Denmark | 19. Korea | 31. Switzerland |
| 8. Estonia | 20. Luxembourg | 32. Turkey |
| 9. Finland | 21. Mexico | 33. United Kingdom |
| 10. France | 22. Netherlands | 34. United States |
| 11. Germany | 23. New Zealand | |
| 12. Greece | 24. Norway | |

Countries participating in PISA 2009 - partner countries/economies are:

1. Albania	11. Indonesia	22. Qatar
2. Argentina	12. Jordan	23. Romania
3. Azerbaijan	13. Kazakhstan	24. Russian Federation
4. Brazil	14. Kyrgyzstan	25. Serbia
5. Bulgaria	15. Latvia	26. Shanghai – China
6. Chinese Taipei	16. Liechtenstein	27. Singapore
7. Colombia	17. Lithuania	28. Thailand
8. Croatia	18. Macao – China	29. Trinidad and
9. Dubai (UAE)	19. Montenegro	Tobago
10. Hong Kong	20. Panama	30. Tunisia
– China	21. Peru	31. Uruguay

Albanian target students in PISA 2000 and PISA 2009

The first students to take part in PISA 2009 began their first school year in 2000, which was the first year that Albania participated in PISA international assessment. Consequently, a comparison of the results of this period provides important input for further analysis of the impact of reforms and changes in the Albanian education system and the country's educational policies.

Most of the 15-year-old students taking part in PISA 2000 were in the first year of high school.

In 2009, the 15-year-old students who were the target population of PISA assessment were divided into two approximately equal groups; the first half were in the 9th grade, which is the last year of primary education, and the second half belonged to the first year of high school. This change occurred because of a change in the system that increased primary education from 8 to 9 school years, and reduced high school education from 4 to 3 school years.

Relevant Statistics in PISA 2009 - Albania

Number of 15-year-old students in 2009	55,587 students
Number of 15-year-old students in the 7 th grade and higher	42,767 students
Number of students participating in PISA	4,596 students

Albanian students' performance in PISA 2009

General view of the results of PISA 2000 and PISA 2009

Below we present the results of Albanian students in PISA 2000 and PISA 2009 in three domains: reading, mathematics and science.

Table 1: Albania results in PISA 2000 and PISA 2009.

PISA Albania	PISA 2000	PISA 2009
Reading	349	385
Mathematics	381	377
Science	374	391

In Figure 2, we provide a graphic presentation of the change in Albanian performance in two PISA assessments in reading, mathematics and science. We can see from the graph that the result of PISA 2009 in reading represents a great improvement (36 points) compared to PISA 2000. The reading component was the main domain in both PISA 2009 and PISA 2000. Only one subject is the main domain in every PISA, which means that each subject is the main domain every nine years, or after three PISA assessments. Albania also achieved significant improvement in science (29 points), but the result was not as encouraging in mathematics, which decreased by 4 points.

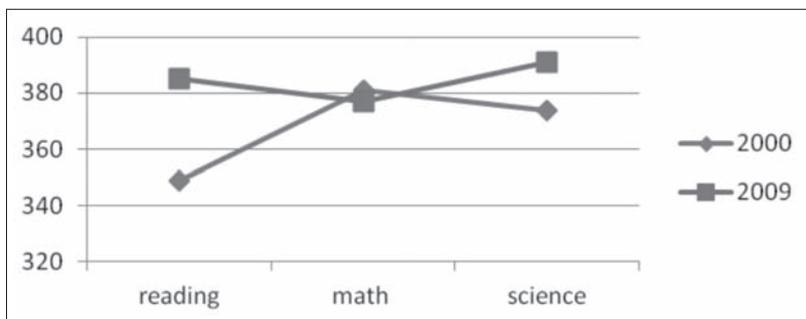


Figure 2: Comparison of Albanian results in PISA 2000 and PISA 2009.

Among the 65 participating countries, Albania was ranked in third place in terms of improvement compared with the results of PISA 2000, with only Chile and Peru achieving a more significant level of improvement. There was an increase of 36 points for all students, which was a considerable change and

statistically above the OECD average. This change represents a 35 point increase in boys' performance and a 39 point increase in girls' performance. Albania was ranked 60th amongst the 65 participating countries in reading, and achieved 59th place in mathematics and science.

Albanian students' performance by subjects - PISA 2009

Albania performance in reading in PISA 2009

Students' performance by levels in reading

“Since both PISA 2000 and PISA 2009 focused on reading, it is possible to track how student performance in reading changed over that period. Among the 26 OECD countries with comparable results in both assessments, Chile, Israel, Poland, Portugal, Korea, Hungary and Germany as well as the partner countries Peru, Albania, Indonesia, Latvia, Liechtenstein and Brazil all improved their reading performance between 2000 and 2009, while performance declined in Ireland, Sweden, the Czech Republic and Australia” (OECD, 2010e).

Table 2: Albanian students' achievements according to levels.

Level of Proficiency	Below level 1b	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
Albania	11.3%	18.7%	26.6 %	25.6%	14.4%	3.1%	0.2%	≈ 0%
Boys	17.5%	24.4%	27.2%	19.7%	9.7%	1.5%	≈0%	≈ 0%
Girls	4.9%	12.8%	26.0%	31.9%	19.4%	4.8%	0.3%	≈ 0%

From Table 2, it is obvious that the achievements of 11.3% of the students are below Level 1b, while 43% are in either Level 2, Level 3 or Level 4. At the same time, approximately 52% of the students achieved Level 1a and Level 2, while only approximately 18% achieved either Level 3, Level 4 or Level 5.

Albania should have had a better percentage of representatives in Level 6.



Figure 3: Levels of proficiency in reading in countries in the Albanian region.

Gender differences

PISA 2009 showed an increase in the disparity between females and males in reading literacy, coupled with a general decline in reading engagement. Female students outperformed males in all participating countries, although the size of the difference varied across countries, with the smallest gap found in Colombia and the largest in Albania.

In PISA 2009 assessment, the achievements of girls were higher than those of boys. Although girls performed better, they were still below the accepted OECD level. Girls gained 417 points, or 62 points more than boys, who achieved 355 points. This difference is statistically significant and equal to approximately one and a half years of education in comparison with the mean scores in one year of education in OECD countries. Even in PISA 2000, there was a clear difference in favour of girls' results. On closer examination, we notice that Albanian girls had higher achievements in Levels 2, 3, 4 and 5 (more than 50%), clearly indicating that they have more ability than boys. A small percentage of girls even managed to achieve reading ability (skills) at Level 5. Boys also had lower results than girls in the fields of mathematics and science. Differences between boys and girls are closely related to their attitudes and behaviour, so the differences observed would appear to be a social problem rather than a problem of school. As mentioned above, the transition period experienced in Albania after the 1990s was followed by several problems, including difficulties in the education system. The transition process was accompanied by demographic shifts in urban areas in Albania and immigration, resulting in a decrease in interest in education, especially amongst boys, while girls retained a greater level of interest in education, viewing it as an investment in their future.

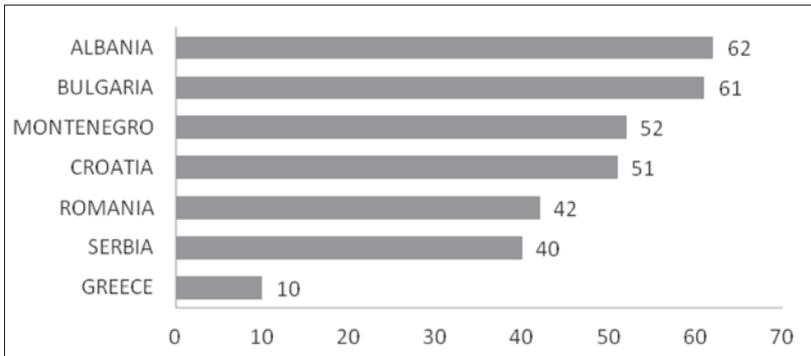


Figure 4: Gender differences (girls-boys) in reading in countries in the Albanian region.

Girls performed better than boys in reading in all of the countries in the Albanian region. As can be seen in Figure 4, the results may be classified into 4 groups:

- Group I – Albania, Bulgaria (62 points, 61 points)
- Group II – Montenegro, Croatia (52 points, 51 points)
- Group III – Romania, Serbia (42 points, 40 points)
- Group IV – Greece (10 points)

This difference is more evident, and more or less the same, between Albania and Bulgaria, while groups 2 and 3 decreased progressively by 10 points each. Only Greece does not follow the trend of other countries in the Albanian region, with a difference of 10 points.

From this analysis we can conclude that strategies for improvement in boys' abilities in reading should be the focus of education systems in the countries of the Albanian region.

Changes in student performance since 2000

Based on the results achieved, Albanian students show good or weak achievements in the following aspects:

- Good achievements in reading
 - Finding a piece of information in a simple text;
 - Comparing information;
 - Combining different pieces of information within a text;
 - Identifying simple ideas mentioned a couple of times in a given text;
 - Interpreting a phrase in a short text or in a known case;

- Identifying the main idea, or the purpose of the author, in a text that treats a known case;
 - Finding the meaning of a phrase or single word;
 - Creating a simple relationship between the information given in a text and general knowledge of daily life;
 - Explaining the type of the text based on the students' personal experiences and attitudes.
- Serious weaknesses in reading
 - Confrontation with types of texts unfamiliar to the students;
 - Integrating information obtained from different texts;
 - Identifying ideas previously unknown;
 - Generating abstract categories for developing different interpretations;
 - Critical evaluation of a complex text about an unknown case;
 - Applying sophisticated comprehension beyond the text;
 - Critical evaluation of different texts and forming a hypothesis on them, thus developing specialised knowledge and processing concepts that can be contrary to what is expected.
- Improvements in reading performance were achieved at all proficiency levels

“Chile and the partner countries Indonesia, Albania and Peru showed improvements in reading performance among students at all proficiency levels. ... These countries are also among those that show the largest improvement in mean performance and in which the percentage of students performing below Level 2 decreased” (OECD, 2010e). The lowest achieving students show similar levels of improvement to the highest achieving students in Albania.
- Enjoyment of reading increased

“In a large number of countries, the decrease in enjoyment of reading was much more pronounced among boys than among girls, leading to a widening of the gender gap. Poland and the partner country Albania saw the largest increase in the gender gap in enjoyment of reading. In Albania, girls' enjoyment of reading increased between 2000 and 2009, but on average in 2009, boys enjoyed reading as much as they did in 2000.”
- The share of girls reading for enjoyment increased

The proportion of girls who reported reading for enjoyment increased

in some countries in the Albanian region, exceeding 80% in Greece, Bulgaria and Albania.

- Improvement is possible regardless of a country's cultural context or its starting position

“Among the 26 OECD countries with comparable results in both assessments, Chile, Germany, Hungary, Israel, Korea, Poland, Portugal, and the partner countries Albania, Brazil, Indonesia, Latvia, Liechtenstein and Peru all show overall improvements in reading performance. The fact that such a diverse group of countries succeeded in raising the level of their students' performance in reading indicates that improvement is possible regardless of a country's cultural context or where it starts out from” (OECD, 2011a).

Reading performance by school location in Albania

Students in city schools in Albania perform much better than students in rural schools.

On average across the OECD, students in city schools outperform students in rural schools by 40 score points, or the equivalent of one year of education.

Table 3: Reading performance by school location.

Reading performance by school location	Students attending schools located in a village, hamlet or rural area (fewer than 3,000 inhabitants)	Students attending schools located in a small town (from 3,000 to approx. 15,000 inhabitants)	Students attending schools located in a town (from 15,000 to approx. 100,000 inhabitants)	Students attending schools located in a city (from 100,000 to approx. 1,000,000 inhabitants)
Percentage of students	25%	20%	27.7%	27.3%
Average performance in reading	347	368	394	426

The results show a progressive increase in the case of schools in a location with a greater number of inhabitants. It seems that in urban areas with a greater number of inhabitants there is more possibility of guaranteeing a better education system.

“...in Turkey, the Slovak Republic, Chile, Mexico and Italy as well as the partner countries Peru, Tunisia, Albania, Argentina and Romania,

the performance gap between students in city schools and those in rural schools is more than 45 score points, after accounting for students' socio-economic background. This gap is 80 score points or more – or the equivalent of two years of schooling – in Hungary and in the partner countries Bulgaria, Kyrgyzstan and Panama.” (OECD, 2010b, p. 14).

Albanian performance in mathematics in PISA 2009

Mathematics performance by levels

The percentage of students with low achievements is too high, with 40.5% of students falling below Level 1, while 30% of students are in Level 2, Level 3 or Level 4. There are more boys than girls below Level 1 and more girls than boys in Level 1 or Level 2, while the same percentage of boys and girls are in Level 3 or Level 4. There are more boys than girls in Level 5

Table 4: Albanian students' performance by levels in mathematics.

Level of Proficiency	Below Level 1	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Albania	40.5%	27.2%	20.2%	9.1%	2.6%	0.4%	≈ 0%
Boys	43.5%	25.5%	18.8%	9%	2.6%	0.5%	≈ 0%
Girls	37.3%	29%	21.6%	9.1%	2.7%	0.3%	≈ 0%

Levels of proficiency in countries in the Albanian region

The percentage of students below Level 1 is higher than the OECD mean score below Level 1 for all countries in the Albanian region.

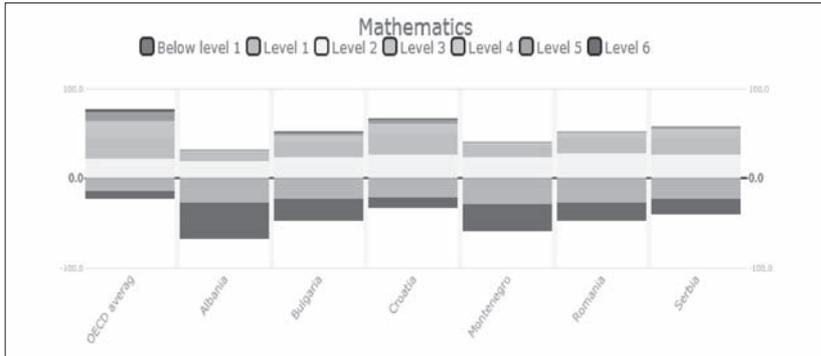


Figure 5: Levels of proficiency in mathematics in countries in the Albanian region.

Gender differences in mathematics performance in countries in the Albanian region

In Albania, girls outperformed boys by 11 score points. In fact, Albania and Bulgaria are the only countries in the region in which girls outperform boys in mathematics. On average across OECD countries, boys outperform girls by 12 score points.

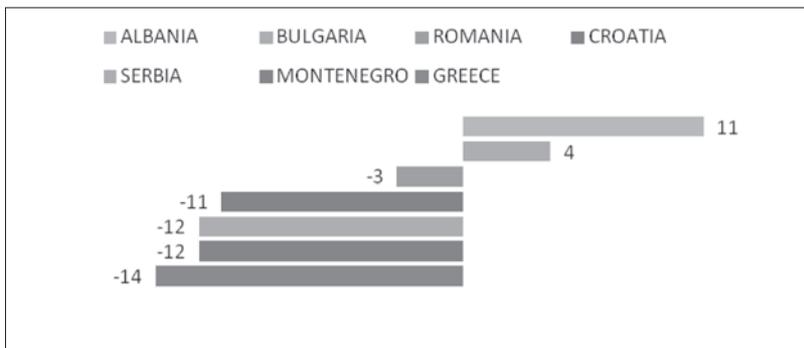


Figure 6: Gender differences (girls-boys) in mathematics in countries in the Albanian region.

Albanian performance in science in PISA 2009

Science performance by levels

Assessment in science includes assessment in a group of school subjects such as chemistry, biology, physics, geography, and Earth science. Albania achieved 391 points from a possible 575 points.

Table 5: Albanian students' performance by levels in science in PISA 2009.

Level of Proficiency	Below Level 1	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Albania	26.3%	31%	27.7%	12.9%	2.0%	0.1%	≈0%
Boys	32%	32%	24%	10.3%	1.6%	0.1%	≈0%
Girls	20.3%	30%	31.5%	15.7%	2.5%	0.1%	≈0%

26.3% of students are below Level 1, while 43% of students are in Level 2, Level 3 or Level 4, with the percentage of girls in these levels being about 50% and the percentage of boys being 36%. There is a much higher percentage of boys than girls below Level 1.

Levels of proficiency in some countries in the Albanian region

In Romania, Serbia, Montenegro and Albania, the percentage of students who reach Level 6 is almost 0%.

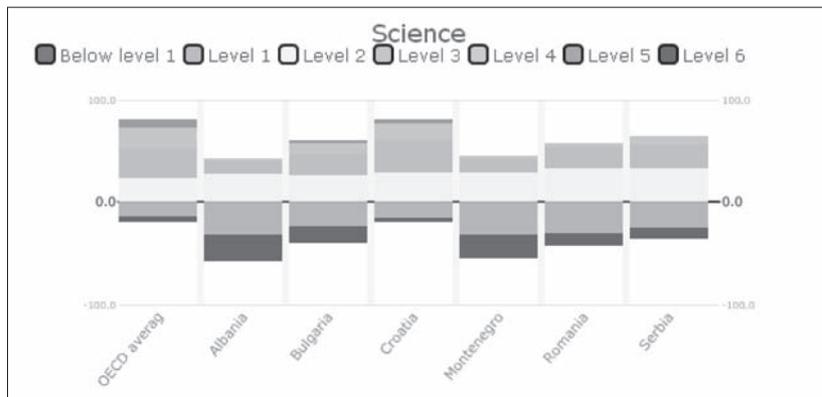


Figure 7: Levels of proficiency in countries in the Albanian region.

Across OECD countries, 8.5% of students are proficient at Levels 5 or 6. The countries with 0.5% or less of students at these levels are Albania (0.1%), Montenegro (0.2%) and Romania (0.4%).

Across OECD countries, an average of 29.1% of students are proficient at Level 4 or higher.

In contrast, less than 5% of students reach Level 4, 5 or 6 in Albania (2.1%), Montenegro (3.4%), and Romania (4.8%). Croatia has the lowest percentage of students below Level 1, while Albania and Montenegro have the greatest percentage of students below Level 1.

Girls perform better than boys in science in some countries in the Albanian region

In Albania, girls perform better than boys in all three subjects of PISA assessment. In science, this difference is 29 points more than boys, with boys gaining approximately 377 points and girls 406 points. In Figure 8, we show this indicator for the countries of the Albanian region. Girls outperform boys in all of the countries of the Albanian region. The highest difference is in Albania and the lowest is in Serbia. Greece, Romania and Croatia have statistically the same difference.

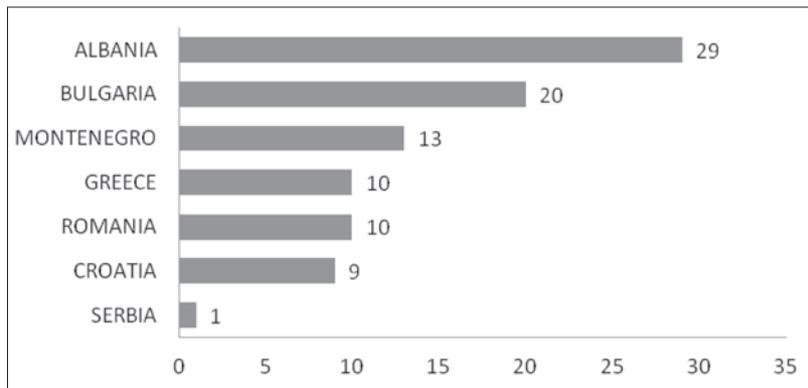


Figure 8: Gender differences (girls-boys) in performance in science in countries in the Albanian region.

Difficulties faced by Albanian students in science:

- In questions in the science part of PISA 2009 assessment, there was a combination of knowledge from different subjects. This made it difficult for Albanian students to give exact answers, as the Albanian curricula did not treat exercises of this question type. Some of this knowledge has become part of curricula since PISA 2009 was developed.
- Albanian students had difficulties in evaluating and reaching conclusions in non-standard situations. It seems that describing and reproducing knowledge dominates reasoning, interpreting and arguing. Teacher training is therefore needed in order to provide students with combined knowledge not only in one subject, but in a group of subjects. However, this lack of knowledge does not occur only due to a lack of teacher qualification, but often also due to a lack of didactic and experimental equipment, as well as a lack of contemporary information and examples from daily life in Albanian school curricular classes or in Albanian extracurricular classes.
- It is difficult for Albanian students to solve problems from their textbooks. This is partly due to the reasons mentioned above, but also due to insufficient use of other information sources typically offered by new technology, such as the Internet and scientific publications aimed at this age group.

Performance in reading, mathematics and science by type of school

According to data analysis on the three domains of assessment, private schools achieved higher results. The best result was achieved in reading, with the difference in mean score of 65 points being more than one school year in OECD countries, as shown in Table 6.

Some of the factors that affect the higher performance results of private schools are:

- As a consequence of the socioeconomic problems that Albania faced during the transition period, public education encountered a lot of difficulties, thus giving private education an advantage as an alternative.
- Private schools are located in the country's main cities.
- The number of students per class in private schools is lower than in public schools.
- The private education system has more autonomy than the public system.

Table 6: Performance of students in the three domains by type of school.

State schools vs. independent private schools ¹				
Percentage of students	Performance in reading (mean score)	Performance in mathematics (mean score)	Performance in science (mean score)	Difference in the performance on the reading scale between public and private schools. Difference (Public – Private)
11.1	442	426	445	-65

Other aspects of Albanian results in PISA 2009

Teacher-student relations in PISA 2000 and 2009

The following graph shows the percentages of students agreeing or strongly agreeing that “*Most of my teachers really listen to what I have to say*”.

It is evident that in Albania, more than in other countries, students report their teachers’ willingness to listen to them and to help them.

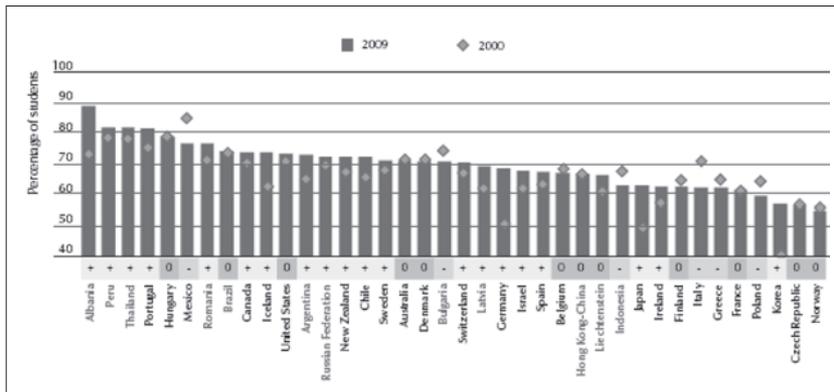


Figure 9: The percentage of students agreeing/strongly agreeing that “*Most of my teachers really listen to what I have to say*.”

It is evident that in Albania there is a trusting climate between teachers and students. This is a strong base from which those involved in education in Albania can start to increase the level of students’ achievements in future national and international assessments. “Among partner countries and economies, teachers’ role in stimulating interest in reading follows a similar pattern to that of OECD countries. The highest levels of the *index of teacher stimulation of*

students' reading engagement are observed in Kazakhstan, the Russian Federation, Kyrgyzstan, Azerbaijan, Montenegro and Albania" (OECD, 2010d).

Classroom discipline in PISA 2000 and 2009

This indicator improved from 2000 to 2009 in many countries participating in PISA evaluation.

"Students who reported that there are few disciplinary problems in their classes perform better in PISA than those who reported that a lack of discipline in class disrupts learning.

- Between 2000 and 2009 classroom discipline improved in many countries that participate in PISA, and the majority of students in OECD countries enjoy orderly lessons.
- Generally, countries where discipline in the classroom improved between 2000 and 2009 are also those where students reported better relations with their teachers.

PISA offers no evidence to support the notion that discipline in school is a growing problem and that students are becoming progressively more disengaged from school. In fact, between 2000 and 2009 discipline in school and teacher-student relations improved" (OECD, 2011b).

The impact of the socioeconomic environment

The impact of the socioeconomic environment on assessment results was lower in 2009 than in 2000. Thus we can conclude that Albania still has potential resources for improving the achievements of Albanian students that are not related to socioeconomic resources.

PISA 2009 results show that the impact of a student's socioeconomic background on his or her performance has weakened significantly in Albania.

"Among countries that showed improvements in reading performance, changes in the demographic and socioeconomic composition of student populations had the largest impact in Israel and the partner country Albania, where the improvement in student performance would have been seven and 12 score points larger, respectively, if the demographic and socioeconomic context had been similar in 2000 and 2009" (OECD, 2010a).

The largest decline in the socioeconomic background of students between 2000 and 2009 was observed in Albania and Bulgaria.

Performance of students with an immigrant background in the host country by country of origin

Albanian students in host countries had lower achievements than students of the host country. Albanian students in Montenegro had the lowest achievements and those in Greece had the highest achievements in relation to the achievement of the host country.

Table 7: Albanian students' performance in host countries.

Albanian students in host countries	Switzerland	Greece	Montenegro
Mean of the country	501	483	401
Students from Albania	384	439	373

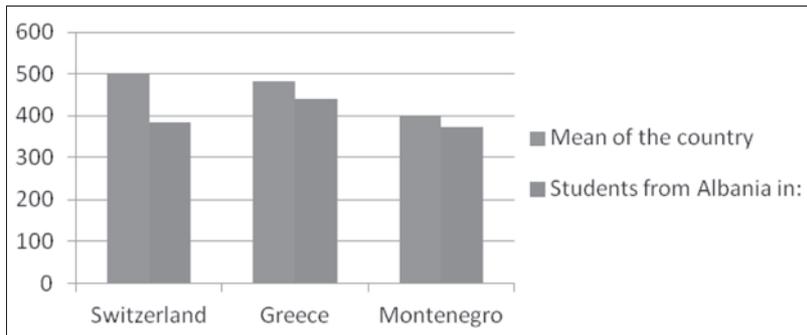


Figure 10: Graph of Albanian student performance in host countries.

Pre-primary school attendance improves student performance

It is clear that children who have attended kindergarten, which offers preschool education in Albania, have higher results. Same correlation is also identified for other countries participating in PISA 2009.

Table 8: Performance according to pre-primary school attendance.

Performance by pre-primary school attendance	No pre-primary school attendance	Pre-primary school attendance for one year or less	Pre-primary school attendance for more than one year
Percentage of students	24.5	22.7	52.7
Average performance in reading	371	385	404

- 15-year-old students who have attended pre-primary education perform better in PISA than those who have not, even after accounting for their socioeconomic backgrounds.
- Disadvantaged students have less access to pre-primary education than advantaged students in almost every country, particularly those in which pre-primary education is not widespread.
- High-performing and equitable school systems are also those with little socioeconomic disparity in access to pre-primary education.
- How pre-primary education is provided affects the extent to which attendance benefits individual students.

Widening access to pre-primary education can improve both overall performance and equity by reducing socioeconomic disparities among students, if extending coverage does not compromise quality.

The most important factors in PISA 2009 results

Socioeconomic variations

During the years 1990-1999, the overall socioeconomic development in Albania underwent huge changes. The effect of this was evident even in the results that students achieved in PISA 2000. Over the subsequent ten years, Albania achieved encouraging socioeconomic growth and stability. The positive effects of this were again seen in students' results in PISA 2009. Consequently, we can see that in Albania socioeconomic development is the most important factor in the level of educational results. This argument becomes even more convincing if we examine the progress in reading results, which were not only higher but were almost in same level for both boys and girls.

Before 1990, more than 60% of the population of Albania lived in rural areas. In 1990, the political and economic regime in Albania changed, resulting in a freeing up of the demographic movement and an orientation of the population towards urban areas. As can be observed in the figures shown in Table 3,

students' results are higher in schools located in urban areas.

Education system reforms

Since 1990, many changes have taken place in the Albanian education system, especially in the pre-university system. In order to improve the quality of education for preschool children making the transition from kindergarten to elementary school, new educational programmes and methods have recently been introduced. The curricula of the elementary education system were the first affected by the changes, mainly in terms of textbooks and educational programmes. These programmes aim to use interactive teaching methodology in elementary school. Teachers in the Albanian education system have attended continuous training modules on these programmes for several years and are now implementing them successfully.

Changes and improvements have occurred in the main fields of educations in the form of: managing and financial administration, curricular programmes, school textbooks, the external and internal evaluation system, new didactic technologies, etc.

Recommendations on educational policy by subjects

Reading

The actual curricula in reading seem to be more suitable for students with high results. The plan for overall comprehensive curricula is really essential. Certain parts of the curricula should be relieved from overburdening; these are key parts of the curricula that transmit numerous concepts at the same time, making the intelligibility of these concepts more difficult for students. The reading part of the programme is mainly taken up by fiction, and little scope remains for other kinds of literature or for so-called informative, descriptive literature, etc. However, it is a well known fact that fiction is often regarded by students as difficult, firstly due to the nature of the topics and secondly because in some cases it is not selected in accordance with students' age. Furthermore, there is not enough space for other kinds of literature that are nowadays often encountered by the students themselves, such as reading informative texts, reports, advertisements, etc.

Mathematics

Comparison of the mathematics results in Pisa 2000 and 2009 showed a decrease of 4 points. In view of the evident improvement in reading and science results, the results in mathematics are cause for concern. It is obvious that the

improvement of curricula is more essential than other factors that might have affected in this result.

Programmes and textbooks should be improved, as there are some aspects of mathematics that are not included as much as necessary. Geometry and graphical presentations should be more comprehensive and integrated into the subject programme of mathematics. Educational textbooks and programmes should allow new and difficult concepts to be treated longer in class.

The transition of the existing 9th grade of primary education to high school is not properly reflected in the respective programmes and textbooks. In order to guarantee the required progress, this transition should be associated with the necessary scientific and didactic qualifications of mathematics teachers.

The result of students with the lowest achievements must be improved, as the percentage of such students is unacceptably high, with 40.5% of students achieving results below Level 1 (Table 4).

The results of national exams at the end of the 9th grade must be analysed more deeply and compared with the results obtained from PISA assessments. In the national exam of mathematics at the end of 9th grade, 75% of students gained less than half of the maximum points.

Data provided by national assessments must be examined further in order for important conclusions to be reached, thus making the comparison of these results with those of international assessments more effective.

Science

In the curriculum of the nine-year school system, knowledge for a group of subjects, such as chemistry, biology, physics, geography, etc., should be integrated. Furthermore, the basic required logistics should be organised, such as equipment and labs that in most cases are mandatory for this subject, and the use of new information technology should be encouraged.

Not all students have the possibility of obtaining this kind of information individually. In school environments, such as libraries and Internet rooms (centres of knowledge development), there should be teachers who can support students in expanding their knowledge.

Instead of the traditional lecturing method, teachers should practise new methods putting the students at the lesson focus, thus giving priority to student discussion and ways of thinking and reasoning.

In general, teacher training should be continuous and effective. Training activities must be more effective in each of the three subjects, because often there is no continuity and training is not related to the curriculum being

implemented. The qualification of teachers of grades 6-9 should be the main focus.

“When it comes to learning, it’s the quality of teaching at school and students’ attitudes towards learning that count most, not the number of hours students spend studying” (OECD, 2011c).

Improvement of low student achievements in reading, mathematics and science

In most countries, students who are poor performers are mainly boys from socioeconomically disadvantaged backgrounds. Results from PISA indicate that this group is far from being equipped with the skills and competencies needed to participate fully in society.

The achievements of students with low results should be improved due to the fact that the percentage of such students is very high. Furthermore, the factors affecting this result should be identified. Some of these factors have been mentioned above; however, we should highlight the fact that finding ways to motivate reading, especially in boys, and focusing increased attention on social groups with socioeconomic difficulties, still remain the key factors.

In many countries, progress was made towards achieving greater equality in learning outcomes during the 2000-2009 period.

“Improvements among the lowest performing students do not have to be realised at the expense of the highest performing students... In none of the countries where the lowest performing students improved did the highest performing students show a decline in their performance” (OECD, 2011a).

PISA RESULTS SUGGEST HOW COUNTRIES CAN IMPROVE THEIR PERFORMANCE.

“PISA results suggest that the countries that improved the most, or that are among the top performers, are those that establish clear, ambitious policy goals, monitor student performance, grant greater autonomy to individual schools, offer the same curriculum to all 15-year-olds, invest in teacher preparation and development, and support low performing schools and students” (OECD, 2011a).

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Biographical note

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PISA in Finland: An Education Miracle or an Obstacle to Change?

PASI SAHLBERG¹

≈ The present article discusses the role and impact of the Programme for International Student Assessment (PISA) in Finland. PISA has created a new geography of education policies and reforms by shifting global interest away from Anglo-Saxon education systems to Asian countries, as well as to Finland and Canada in the West. The article describes how PISA has become evidence of the successful education reforms in Finland carried out since the 1970s, but at the same time has created a situation where the continuous renewal of the Finnish education system has become more difficult than before. The conclusion is that PISA is an important global benchmarking instrument, but that policy makers and the media need to make better use of the rich data that have been collected together with information about students' academic performance.

Keywords: Education policy, Education reform, International student assessment, PISA

Introduction

International benchmarking in education has become a lever for education reform. Indicators and especially data from various international student assessments are increasingly used as policy guides when targets for national education reforms are decided. Until very recently, this international benchmarking was done by using input statistics, such as enrolment ratios, class sizes, educational attainments and education spending. The main focus of educational performance in education systems that benchmark their policies and practices internationally is on student achievement in literacy, mathematics and science. Therefore, many national education policies today look similar – they focus on higher standards and closing achievement gaps by rewarding teachers for

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successful accomplishment of these strategic goals.

There are different ways to compare educational performance in different countries. The Organisation for Economic Cooperation and Development (OECD) has developed a system of education indicators that provide its 34 member countries and its candidate countries with systematic checkpoints of educational performance. The OECD's annual statistical reference publication, entitled *Education at a Glance*, is a commonly used policy guide in OECD countries and beyond. The European Commission provides similar education data for national policy making and benchmarking in European Union member and candidate countries. The United Nations maintains and shares education indicators that provide developing countries in particular with a global picture of how education systems around the world are performing. Although these global education data have become more systematic and reliable over the years, there are still inconsistencies and significant gaps that sometimes make international comparisons difficult. Aspects such as teaching, leadership and student learning outcomes can still only be compared in limited areas of schooling.

Two institutions that administer major international student assessments are the International Educational Assessment (IEA), based in Boston College, U.S.A., and the OECD, located in Paris, France. The IEA conducts different studies in regular cycles, such as the Trends in International Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS) and the International Civic and Citizenship Education Study (ICCS). Participation in these studies is voluntary and often requires significant financial commitments from governments. The OECD coordinates the Programme for International Student Assessment (PISA), which was first implemented in 2000 in OECD member and candidate countries. It is worth noting that, although they measure the same areas of student achievement, these studies are not similar.

Since this journal issue discusses these international studies in more detail, the present article will not explain them in further depth. However, it is important to know that TIMSS and PISA, which both assess pupils' achievements in mathematics and science, are different in several important ways (Schleicher, 2009). Firstly, TIMSS measures how well students have learned different areas of the school curriculum, in other words, knowledge and skills included in mathematics and science teaching. PISA, in addition, focuses on how well students at the beginning of upper secondary school are able to use the knowledge and skills they have learned in new situations. Secondly, the IEA studies include a varying number of countries in four-year cycles, whereas PISA is primarily designed for developed OECD member countries, all of which have

participated in every three-year cycle since 2000. Finally, TIMSS and PIRLS examine pupils who are in the 4th and 8th grades regardless of their ages, whereas students taking PISA tests are all 15 years old at the time of the tests. This means that IEA assessments are also able to follow up the age cohorts of 4th graders from one cycle to the next, whereas PISA does not. After the inauguration of PISA in 2000, several OECD and European Union member countries, including Finland, opted out of TIMSS and PIRLS and now use PISA as their international benchmarking tool in educational performance.

International student assessment studies in Finland before PISA

In the 1980s, the Finnish education system had only a few features that attracted any interest among international educators. Many aspects of education were adopted from Finland's wealthier western neighbour, Sweden. In international comparisons, Finnish education was exceptional on only one account: Finnish 10-year-olds were among the best readers in the world (Elley, 1992). Other than that, international education indicators left Finland in the shadow of traditional education superpowers, such as Sweden, England, the United States, and Germany. What is noteworthy is that Finland has been able to upgrade human capital by transforming its education system from mediocrity to one of the best international performers in a relatively short period of time. This success has been achieved by education policies that differ from those in many other nations. Indeed, some of the education reform policies appear to be paradoxical because they depart so clearly from global education reform thinking.

Prior to the first cycle of PISA in 2000, many countries thought that their education systems were world class and that students in their schools were better learners than elsewhere. These countries include Germany, France, Norway, Sweden, England and the United States. Many former Eastern European socialist countries – Bulgaria, Romania, Hungary and Yugoslavia – and the Soviet Union believed their school systems were internationally at a high level and therefore able to compete with other leading education systems. There was a reason for this. Those who celebrated the good performance of their education systems often got this impression from available education indicators, such as educational attainment, spending and college graduation rates, as well as from the results of international competitions, such as the International Olympiads in Mathematics, Physics and Chemistry, events that were later also organised for other school subjects, including computer science, biology and philosophy.

In these academic scholarly competitions, high school students compete in advanced-level knowledge in their fields. Naturally, those education systems that have established effective selection systems to identify talents and special abilities early on and then provide gifted students with optimal learning opportunities have succeeded well in these games. Heavily populated nations with large numbers of students, like China, the United States and the former Soviet Union, have acquired a reputation as high-performing education nations on the basis of Academic Olympiads. Interestingly, several Central and Eastern European countries, among them Hungary, Romania and Bulgaria, are also ranked highly in the overall league tables of these Olympiads. Table 1 illustrates the position of Finland among some selected nations in Mathematics Olympiads since 1959, when Finland participated for the first time in these games.

Table 1: Finnish upper secondary school students in Mathematics Olympiads compared with their peers in selected countries since 1959.

	Medals			Number of participations	Number of participating students
	Gold	Silver	Bronze		
China	101	26	5	23	134
USA	80	96	29	34	216
The Soviet Union	77	67	45	29	204
Hungary	74	138	77	48	324
Romania	66	111	88	49	332
Russia	65	28	9	17	102
Bulgaria	50	89	88	49	336
Japan	23	52	30	19	114
Canada	16	37	66	28	168
Sweden	5	23	66	41	271
The Netherlands	2	21	48	38	250
Norway	2	10	24	25	142
Finland	1	5	47	35	224
Denmark	0	3	18	18	102

Source: International Mathematical Olympiad (<http://www.imo-official.org>).

Success in these Academic Olympiads was often used as a proxy of the quality of national education systems. Even if Finnish students' performance in mathematics is adjusted in relation to the size of its population, the relative position of Finland has fluctuated between 25 and 35 in the overall global

ranking list. Until 2001 – and in some circles quite some time after that – a common conception in Finland was that the level of mathematical and scientific knowledge and skills of Finnish students was at best modest by international standards.

As Finland attracts global attention today due to its high-performing education system, it is worth asking whether there has really been any progress in the performance of its students since the 1970s. If such progress can be reliably identified in any terms, the question then becomes: *What factors might be behind successful education reform?* When education systems are compared internationally it is important to have a broader perspective than just student achievement. What is significant from this analysis is the steady progress in Finland during the past three decades within four domains:

1. Increased levels of educational attainment of the adult population;
2. Widespread equity in terms of learning outcomes and the performance of schools;
3. Moderate overall spending and efficiency, almost solely from public sources; and
4. A good level of student learning as measured by international student assessments.

The present article discusses only the last domain; the other three are described in my other recent works (Sahlberg, 2011).

The ultimate criterion of the quality of a national education system is how well students learn what they are expected to learn. International comparisons of education systems put a strong emphasis on scores in standardised achievement tests. Although it is difficult to compare students' learning outcomes today with those in 1980, some evidence of progress of student learning in Finland can be offered using IEA and PISA surveys recorded since the 1970s (Kupari & Välijärvi, 2005; Martin et al., 2000; Robitaille & Garden, 1989). Since it is impossible to conclude whether there has been progress in student learning in general, let us look at some school subjects that have been included in international studies individually.

Mathematics is often used as a proxy for general academic educational performance. The studies available include the Second International Mathematics Study (SIMS) in 1981 (8th grade, 20 nations), the Trends in Mathematics and Science Repeat Study (TIMSS-R) in 1999 (8th grade, 38 nations) and the PISA survey in 2000 (15-year-olds, all 30 OECD member countries). These are the international student assessment surveys in which Finland has participated

since 1980. Since the nations participating in each international survey are not the same and the methodology of IEA and OECD surveys is different, the international average as a benchmarking value does not always provide a fully comparable or coherent picture.

Table 2: Performance of Finnish students in international student assessment studies since the early 1960s.

	Population	Countries	Rank of Finland
IEA First International Mathematics Study (FIMS) 1962–67	13-year-olds and high school completion	12	Average performer
IEA First International Science Study (FISS) 1967–73	10 and 14-year-olds and high school completion	18	Average performer
IEA Study of Reading Comprehension 1967–73	10 and 14-year-olds and high school completion	14	Average performer (in one area third)
IEA Second International Mathematics Study (SIMS) 1977–81	13-year-olds and high school completion	19 (13-year-olds) 15 (high school)	Average performer
IEA Second International Science Study (SISS) 1980–87	At primary, middle and high school completion	23	10-year-olds high 14-year-olds Average performer
IEA Written Composition Study 1980–88	At primary, middle and high school completion	14	Average performer
IEA Reading Literacy Study 1988–94	9 and 14-year-olds	32	Top performer
IEA Third (later Trends in) International Mathematics and Science Study (TIMSS)	4 th and 8 th grade	1995: 45 1999: 38 2003: 50 2007: 59	Above average performer in 1999 (only participation)
IEA Progress in International Reading Literacy Study (PIRLS)	4 th grade	2001: 35 2006: 45	Not participated
IEA International Civic and Citizenship Education Study (CIVED and ICCS)	8 th grade	1999: 31 2009: 38	Top performer
OECD Programme for International Student Assessment (PISA)	15-year-olds	2000: 43 2003: 41 2006: 57 2009: 65	Top performer

Table 2 shows participation of Finland in major international student assessment studies since early 1960s, when the First International Mathematics Study was launched (Sahlberg, 2011). These studies normally compare student achievement in reading comprehension, mathematics and science at three points of education: at the end of elementary school (age 10), lower secondary school (age 14), and upper secondary school (age 17). Finnish students' performance in the Second International Mathematics Study (published in 1981) was at the international average in all areas of mathematics. The national average performance of Finland was clearly behind Hungary, the Netherlands and Japan in lower and upper secondary education. In 1999, the Third International Mathematics and Science Study ranked Finland 10th in mathematics and 14th in science among 38 participating countries. Since the first cycle of PISA in 2000, Finland has been one of the top performing nations in mathematics among all OECD member states. Progress has been similar in science since the Second International Science Study in the late 1970s. However, Finnish students have always performed well internationally in reading: Finnish 4th grade students were the best readers in the Reading Literacy Study in the late 1980s, and 15-year-olds have been ranked top in all four PISA cycles.

What might explain this evident gain in mathematics learning in Finnish schools? Although some research has been undertaken on this question, it contains more speculation and qualitative analysis than reliable answers (Hautamäki et al., 2008; Linnakylä, 2004; Ofsted, 2010; Välijärvi et al., 2007). In this analysis, three possible issues appear. Firstly, mathematics teaching is strongly embedded in curriculum design and teacher education in Finnish primary schools. For example, at the University of Helsinki, each year about 15% of students in the primary school teacher education programme specialise in teaching mathematics. This also allows them to teach mathematics in lower secondary schools. As a consequence, most primary schools in Finland have professionals who understand the nature of teaching and learning – and curriculum and assessment – in mathematics. Secondly, both teacher education and the mathematics curriculum in Finland have a strong focus on problem solving, thereby linking mathematics to the real world of students. Mathematics tasks in PISA are based on problem solving and using mathematics in new situations, rather than on mastery of the curriculum and syllabi. Thirdly, the education of mathematics teachers in Finland is based on subject didactics and close collaboration between the faculties of mathematics and education. This guarantees that newly trained teachers with master's degrees have a systematic knowledge and understanding of how mathematics is learned and taught. Both faculties have a shared responsibility of teacher education that reinforces the professional competences of mathematics teachers.

The era of PISA

PISA is increasingly being adopted as a global measure to benchmark nations' student achievement at the end of compulsory education. In 2009, the fourth cycle of this global survey was conducted in all 34 OECD member nations, as well as in 31 other countries or jurisdictions. It focuses on young people's ability to use their knowledge and skills to meet real-life challenges. "This orientation," as the OECD says, "reflects a change in the goals and objectives of curricula themselves, which are increasingly concerned with what students can do with what they learn at school and not merely with whether they have mastered specific curricular content" (OECD, 2007, p. 16).

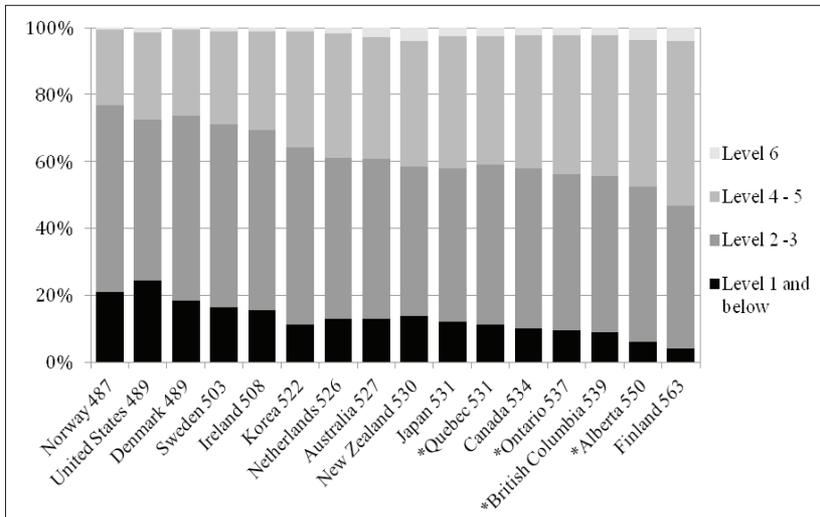


Figure 1: Percentage of students at each proficiency level on the PISA 2006 science scale in selected OECD countries and some Canadian provinces.

Source: OECD (2007).

Finland was the top overall performer among OECD countries in 2000 and 2003 PISA studies, and the only country that was able to improve performance. In the 2006 PISA survey, Finland maintained its high performance in all assessed areas of student achievement. In science, the main focus of the PISA 2006 survey, Finnish students outperformed their peers in all 56 countries, some of which are shown in Figure 1. In the 2009 PISA study, Finland was again the best performing OECD country, with high overall educational performance and equitable learning outcomes with relatively low cost. Significant

in this national learning profile is a relatively large number of best performers (level 6) and a small proportion low achievers (level 1 and below) in all measured subjects. More than half of Finnish students reached level 4 or higher in reading literacy, in comparison to the United States, where only approximately one quarter of all students were able to do the same. The Canadian provinces of Alberta, British Columbia, Ontario and Quebec also have more than 40% of students showing at least level 4 performance. Slovenia and Croatia, the two best South-East European countries in the 2009 PISA reading literacy study, and counties with similar performance profiles, both have about one quarter of their students at level 4 or higher (OECD, 2010a, p. 50).

Figure 2 shows another divergent trend of Finnish students' learning performance, as measured on the PISA science scale, in comparison to some other OECD countries over time (OECD, 2001, 2004, 2007, 2010a). It is noteworthy that student achievement in Finland also consistently demonstrates progress according to PISA data, unlike several education superpowers. It is important to note that any effects that teaching may have on these results in given education systems have been influenced primarily by education policies and reforms implemented in the 1990s, not by the most recent education reforms.

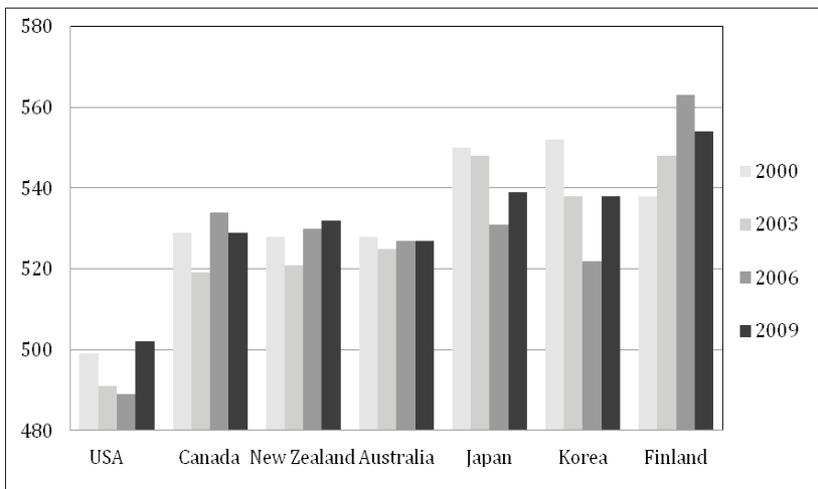


Figure 2: The performance of 15-year-old Finnish students in science in PISA Surveys between 2000 and 2009 in selected OECD countries.

Source: OECD (2001, 2004, 2007, 2010a).

Another question emerges: Why do Finnish students perform exceptionally well in science? Some factors suggested by Finnish science educators

include the following. Firstly, primary school teacher education has, for the past two decades, focused on redesigning science teaching and learning in schools so that students learn through experiential and hands-on science. At the same time, more and more new primary school teachers have studied science education during their teacher education – more than 10% of graduates of the University of Helsinki have studied some science education in their masters' degree programmes. These university studies, as part of normal teacher education, have focused on building pedagogical content knowledge and understanding of scientific process in knowledge creation. Thus, the science curriculum in comprehensive school has been transformed from a traditional academic knowledge-based curriculum to an experimental and problem-oriented curriculum. This change has been followed by massive national professional development support to all primary school science teachers. Thirdly, teacher education in all Finnish universities, including the faculties of science, has been adjusted to the needs of the new school curriculum. Today, science teacher education is coherent and consistent with the pedagogical principles of contemporary science teaching and learning that have been inspired by ideas and innovation from the United States and England.

There are not many international student assessments that focus on subjects other than reading, mathematics and science. However, the IEA International Civic and Citizenship Education Study (ICCS) is one that does, and it is the third IEA study designed to measure contexts and outcomes of civic and citizenship education (Schulz, Ainley, Fraillon, Kerr, & Losito, 2010). Built on IEA's Civic Education Study 1999, the 2009 ICCS studied the ways in which young people in lower secondary schools (typically grade 8) are prepared to undertake their roles as citizens in 38 countries in Europe, Latin America and the Asia-Pacific region. A central aspect of the study was the assessment of student knowledge about a wide range of civic and citizenship-related issues. In this study, *civic knowledge* refers to the application of civic and citizenship cognitive processes to civic and citizenship content. Civic knowledge is a broad term that includes knowing, understanding and reasoning; it is a key outcome of civic and citizenship education programmes and is essential to effective civic participation.

In the 2009 ICCS, Finnish 8th grade students scored the highest average score in civic knowledge along with their Danish peers, as shown in Figure 3. As in PISA and TIMSS, Finland also has the smallest between-school variation of student performance in the 2009 ICCS study. The 2009 ICCS shows that there is a strong relationship between the Human Development Index (HDI) and civic knowledge at the country level. The variation in HDI explains 54% of the

between-country variation in civic knowledge, showing that national averages of civic knowledge are related to factors reflecting the general development and wellbeing of a country. This finding is similar to those from other international studies of educational outcomes; however, it does not necessarily mean that there is a causal relationship between civic knowledge and the overall development of a nation. Paradoxically, this study also found that Finnish youth feel the least engaged in politics and civic issues in their everyday lives.

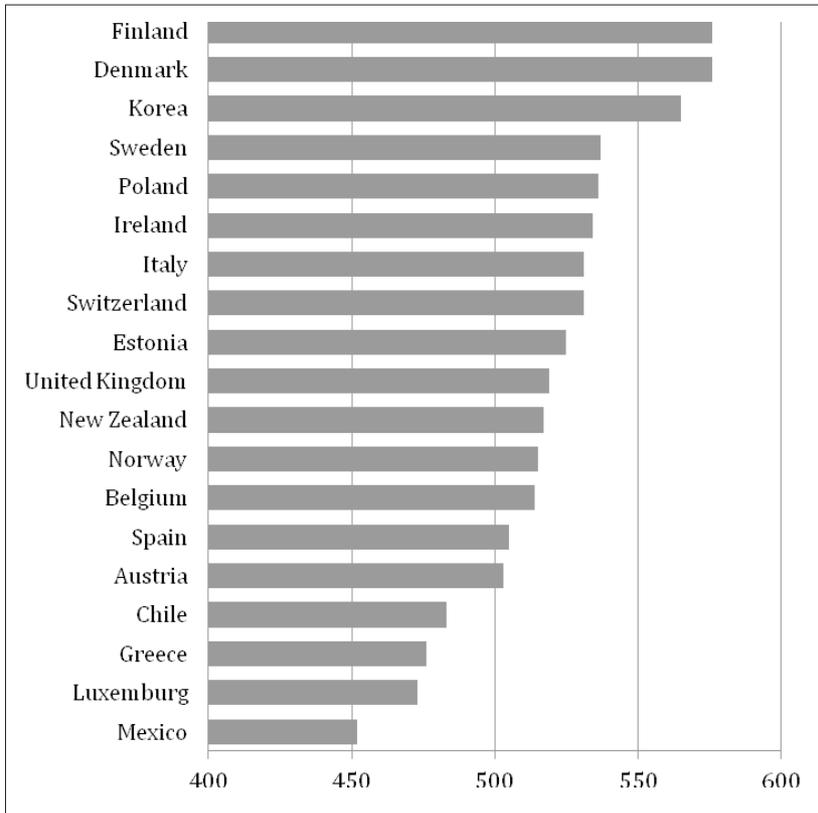


Figure 3: Civic knowledge of 8th grade students in OECD countries that participated in the 2009 International Civic and Citizenship Education Study (ICCS).

Source: Schulz et al. (2010).

All four PISA survey cycles since 2000 indicate that Finnish educational performance is consistent over all assessed education domains and that Finnish students, on average, score highly in every survey across all subjects – in reading,

mathematics and science. The quality as measured by international student assessment studies has been steadily improving since the early 1970s. PISA 2009 was the second cycle to focus on reading literacy, the first being in 2000. It therefore provides a unique opportunity to look at the trend of how well students can understand and use what they read. Although the national average of student performance in 2009 declined slightly from 2000, Finnish students' reading literacy remains at a high level in international terms. What is alarming in PISA 2009, however, is the finding that Finnish young people read less for pleasure than they did ten years ago, with half of the 15-year-old Finnish boys reporting that they do not read for pleasure (OECD, 2010c, p. 65). This is also clearly visible in national studies of reading comprehension and habits in Finland.

According to the OECD, "Finland is one of the world's leaders in the academic performance of its secondary school students, a position it has held for the past decade. This top performance is also remarkably consistent across schools. Finnish schools seem to serve all students well, regardless of family background, socio-economic status or ability" (OECD, 2010b, p. 117). The strength of Finland's educational performance is the consistently high level of student learning, combined with an equitable distribution across schools throughout the country.

Since its inauguration in 2000, PISA has had a huge impact on global education reforms, as well as on national education policies in the participating countries. It has become a significant pretext for educational development in Asia, Europe and North America, and is attracting increasing interest in rest of the world. Large scale education reforms have been initiated (in the United States, England, New Zealand, Germany, Korea, Japan and Poland), new national institutions and agencies have been created, and thousands of delegations have visited high-performing education jurisdictions, including Finland, Alberta, Ontario, Singapore and Korea, to find out the "secrets" of good education (Fullan, 2009; Sahlberg, 2011). In most of the over 65 participating education systems, PISA is a significant source of education policy development and the reason for many large-scale education reforms.

Emerging concerns: Is this really it?

Perhaps it is surprising to many that Finnish educators are not as excited about PISA as many foreigners would expect. Many teachers and school principals think that PISA measures only a narrow band of the spectrum of school learning. There are also Finns who see that PISA is promoting the transmission of education policies and practices that are not transferrable. This will,

they maintain, lead to a simplistic view of education improvement. Just as in sports, too strong an emphasis on international comparisons (or competitions) may lead to unethical means to boost performance temporarily just to raise the ranking in tables of results. A good education system and high educational performance is much more than measured academic scores. Some teachers in Finland are afraid that the current movement that judges the quality of education systems by using academic units of measurement only will eventually lead to a narrowing of the curriculum and teaching at the expense of social studies, arts, sports, music and the development of the whole person.

There is, indeed, increasing debate about what these international tests really measure and whether PISA alone can be used to judge the quality of education systems. Critics' and proponents' arguments are available in education literature (Adams, 2003; Bautier & Rayon, 2007; Bracey, 2005; Dohn, 2007; Goldstein, 2004; Prais, 2003; 2004; Riley & Torrance, 2003; Schleicher, 2007). The reader should note that PISA is not the only available international student assessment, and that other assessments actually measure different aspects of student learning than PISA. Nevertheless, the PISA study is the only international benchmark instrument that covers all OECD countries and that focuses on competences beyond the curriculum taught in schools. It is also worth noting that there is growing criticism among Finnish educators about the ways that students' performance and success in education systems are determined by using only the test scores from academic student assessments. Many would like to see a broader scope of student learning considered in these assessments, such as learning-to-learn skills, social competences, self-awareness or creativity.

Finnish people also need to avoid the illusion that the current ways of measuring the performance of education systems will last forever. Although there are clear advantages to relying on global education indicators – especially those related to the economics of education – and student achievement numbers produced by PISA and other surveys, there will be growing pressure in the coming years to develop educational units of measurement that more inclusively cover a broader range of learning and the changing face of future societies. PISA only looks at one part of this desired outcome of education. At the same time, as Peter Mortimore writes:

PISA also suffers some limitations: It assesses a very limited amount of what is taught in schools; it can adopt only a cross-sectional design; it ignores the role and contribution of teachers; and the way its results are presented – in some, at least, of its tables – encourages a superficial, 'league table' reading of what should be a more interesting but essentially more complex picture. (Mortimore, 2009, p. 2)

Many teachers and principals in Finland have a sceptical view of international measurements and benchmarking tools, as mentioned above. They perceive teaching and learning as complex processes and are aware that measuring these processes reliably is difficult. Moreover, there is an increasing number of practitioners who realise the danger and the consequences of teaching to the test rather than to learn and understand. The Finnish conception of learning in schools is based on the principles of making all students active in teaching and learning. Finland has not adopted the standardised testing systems that are common in many other countries, but instead relies on intelligent forms of accountability, including self-assessment and inspection, portfolio assessment and sample-based national assessments.

When the stakes in international student assessments get higher, so does the chance of wrongdoing. Every education system that runs high-stake national assessments or examinations knows this, and it is also known as Campbell's law (Sahlberg, 2010). Reported testing scandals in Atlanta, Philadelphia, Texas and Washington DC in the United States, as well as nationwide cheating in Indonesia, are all alarming signs of what may be ahead as the role of assessment and related data becomes more prevalent (New York Times, 2011). The New York Times concludes its report on growing school cheating in the United States with a grim conclusion: "Never before have so many had so much reason to cheat. Students' scores are now used to determine whether teachers and principals are good or bad, whether teachers should get a bonus or be fired, whether a school is a success or failure." (ibid.)

What is a good education system?

International student assessments provide valuable information about the quality of education systems, but student achievement as measured by these tests is not the whole story. At best, TIMSS, PIRLS and PISA offer comparable and standardised evidence of student achievement in mathematics, science and reading literacy, as well as characteristics related to teaching in schools. Most teachers and principals know that a good school is much more than a place that produces high achievement results. Similarly, a good education system must meet other important criteria than just good scores in international student assessments. Public media, and unfortunately also many policy makers, miss these facts when they judge the quality of education systems simply by the position of countries in international league tables of educational achievements.

In the present article, I have proposed that a good education system should also demonstrate that it is getting better in its education participation and

graduation rates, system-wide equity of learning outcomes and performance of schools, and efficiency in using financial and human resources in achieving these objectives. It is not enough, therefore, that an education system can be labelled as good or great by using only the data from international student assessments. There are several education systems today that rank well in international test score tables but have high drop-out rates, wide achievement gaps, or widespread use of private tutoring to boost pupils' academic performance. Another characteristic that is often not included in international comparisons is the scale of other forms of structural failure within education systems. Grade repetition, exclusion of students with special needs and inequality of educational opportunities are still typical in many countries, but these factors are not taken into account in the measurement of educational performance in international comparisons.

PISA has revealed some important aspects of what high-performing education systems have in common. Take Korea, Japan, Alberta, Ontario and Finland. They have all scored consistently high – with some minor exceptions – in all PISA cycles since 2000 in reading literacy, mathematics and science. All of these jurisdictions also have smaller variation between schools than the OECD average performance. This suggests that the schools in these education systems are able to deal successfully with students' socioeconomic differences. Finland, as one of the strong performers in PISA, has the most even educational performance profile of all OECD countries, with only about 7.7% of national reading literacy variation from between-school variance, the OECD variance being 42% (OECD, 2010a). This means that the affect of pupils' family background, especially their socioeconomic status, in academic achievement is smaller in countries that also have a higher overall national achievement score, as shown in Figure 4.

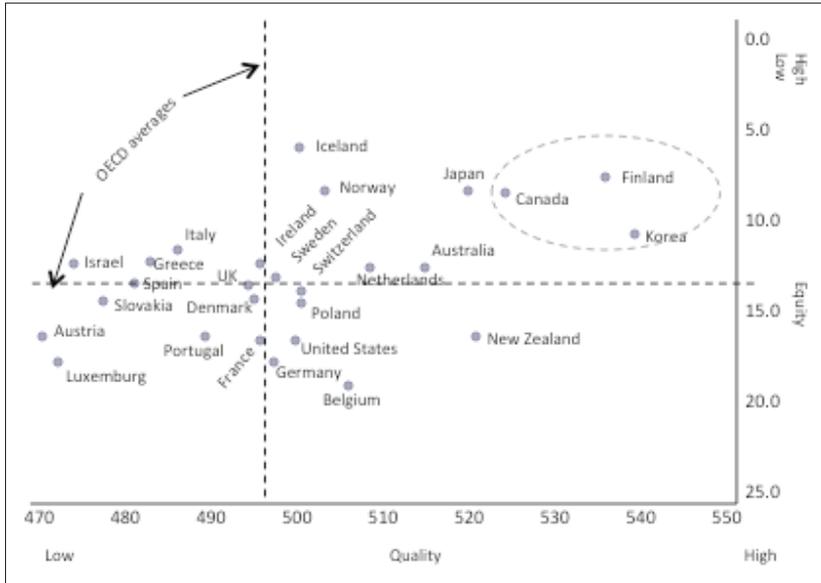


Figure 4: National average PISA score and percentage of variance of student reading performance as a function of socioeconomic status in 2009 in selected OECD countries.

Source: OECD (2010a).

International student assessments also help policy makers to understand other features of their education systems in the international context. Such important variables as students' attitudes toward school, their learning habits and classroom experiences are all important when the performance of education systems is evaluated. National research and statistics in Finland provide systematic information about the conditions in which students study and teachers teach. PISA is also an invaluable benchmarking tool for non-academic aspects of educational performance in Finland and in other countries.

Indeed, Finland is often used as a model of successful reform and strong performance in education. "As societies move beyond the age of low-skill standardization," writes Andy Hargreaves, "Finland contains essential lessons for nations that aspire, educationally and economically, to be successful and sustainable knowledge societies" (Hargreaves et al., 2008, p. 92). However, reform ideas and policy principles that have been employed in Finland since the 1970s will not necessarily work in other cultural or social contexts. For example, in Finland, like in other Nordic countries, people trust each other, and therefore also their teachers and principals, more than in many other countries (OECD,

2008). Similarly, there are other socio-cultural factors that are mentioned by some external observers, such as social capital, ethnic homogeneity and the high professional status of teachers, that may have a key role when transferability of education policies is considered (Schleicher, 2009; OECD, 2010b; Fullan, 2011).

Many want to learn from the Finns how to develop a good education system. Understanding Finnish educational success needs to include an awareness of the socio-cultural, political and economic perspectives. Indeed, there is more to the picture than meets the eye. An external OECD expert review team that visited Finland observed that “it is hard to imagine how Finland’s educational success could be achieved or maintained without reference to the nation’s broader and commonly accepted system of distinctive social values that more individualistic and inequitable societies may find it difficult to accept” (Hargreaves et al., 2008, p. 92). Another visiting OECD team confirmed that the Finnish approaches to equitable schooling rely on multiple and reinforcing forms of intervention with support that teachers can get from others, including special education teachers and classroom assistants (OECD, 2005). Furthermore, Finland has shown that educational change should be systematic and coherent, in contrast with the current haphazard intervention efforts of many other countries. One conclusion was that “developing the capacities of schools is much more important than testing the hell out of students, and that some non-school policies associated with the welfare state are also necessary” (Grubb, 2007, p. 112). Scores of news articles on Finnish education have concluded that trust, teacher professionalism and taking care of those with special needs are the factors that distinguish Finnish schools from most others.

Conclusion

PISA has radically changed the geography of education since it was first introduced in 2000. Former education superpowers – the United States, England, France, Germany and Sweden – have lost their centre-stage roles to Canada and Finland in the West, and Korea, Singapore and Japan in the East. PISA has made Finland an education phenomenon that has brought thousands of people to take a first-hand look at schools where most children seem to be learning well. Finnish teachers are celebrated, school principals admired and the entire education system praised for its exceptional success. This sudden and unexpected international fame has also forced the Finns themselves to find out what has brought this new situation about.

However, PISA has not affected Finnish education policies or structures as it has done in Germany, Japan, Australia or Norway. Quite the opposite.

Being at the centre of attention has made many decision makers and reformers careful not to disturb the high-performing education system. The period between 1970 and 2000 was an active and innovative time of brave reforms and renewal of education in Finland. As I have written elsewhere, the time after PISA can be characterised as one of moderate policies and a lack of innovation in Finnish pre-university education (Sahlberg, 2011). It is possible, of course that the slow pace of educational renewal has been due to other reasons as well. In 2011, ten years after the publication of the first PISA results, Finland suffers from a lack of a clear vision for its education system and confusion over significant budget cuts at a time of domestic financial difficulties. On the level of schools and municipalities, the main concerns are structural changes in administration, pressure to increase productivity, and the expanding diversity of the student population, all of which affect how well schools are able to fulfil their aspirations.

In addition to making Finland an education celebrity, PISA has also brought some challenges. Firstly, finding answers about the possible reasons behind strong educational performance has turned the focus from the future to the past among the education community in Finland. Visitors to Finland often want to know what enabled the Finns to transform their education system when most others did not. Many university professors, education authorities and school principals have spent much of their time and resources in travelling, making presentations and writing about the Finnish education system in the past and present to tell the story of education reform in Finland. This has often been done at the expense of the continuing development of the education system for the future. Ironically, the success of Finnish education during the past three decades is due to forward-looking education policies and active learning from other countries' education reforms and innovations.

Secondly, being in the lead is not always easy. Just as in hiking or skiing, it is easier to follow others and learn from their actions than to lead the way. Finland has always depended on ideas and innovations from other education systems. In other words, Finland has been an importer of education policies and solutions. Now these roles have changed. Many countries would like to borrow or transfer models of schooling from Finland. In Finland, the response to these inquiries has been passive until very recently. However, 'education trade' is becoming a new potential area of income for experts and businesses in Finland. This may have some unexpected consequences unless the provision of highest quality education is first guaranteed for the Finnish people.

Thirdly, continuous occupation of the top position often leads to a state of complacency. It encourages the feeling that when everything seems to work

well there is no need to make any changes to the way things are. Although there are many who believe that good education is more than high scores in some academic subjects, there is an increasing tendency to justify policies and the distribution of financial resources by using performance in international assessment studies like PISA.

It is important that international student assessment studies are used wisely in policy making and education reform architecture. There is much more information in these existing studies that governments and the media have been able to use for better policies and deeper news reporting. Before considering any new forms of data collection, we should make better use of what we already have. PISA and other international benchmark tools are important for any government that cares about education in an open, globalised world. Using these data for the good of our teachers and students is a continuing challenge for us all.

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Teachers' Emotional Expression in Interaction with Students of Different Ages

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Emotions are an integral part of “classroom life” and are experienced in teacher-student interactions quite often (Hosotani & Imai-Matsumura, 2011). The present study focuses on teachers' emotions in classrooms. Its purpose is to establish which emotions are expressed by teachers in their interactions with students, the triggering situations of the two most frequent emotions, and their level of intensity and suitability. Teachers' emotions were observed by students of primary education during their practical experience work, in grades one to five. They used a scheme constructed for observing different aspects of emotions. The observations of 108 teachers in 93 primary schools from various Slovenian regions were gathered. The results show that primary school teachers express various pleasant and unpleasant emotions, with unpleasant emotions prevailing. The average frequency of teachers' emotion expression decreased from grade one to five. Anger was the most frequently expressed emotion ($N = 261$), followed by joy ($N = 151$). Teachers' anger and joy were triggered in different situations: anger predominantly when students lacked discipline and joy predominantly in situations of students' academic achievement. The intensity of expressed anger and joy was moderate in all five grades, while the assessed suitability of these two emotions was high.

Keywords: Classroom, Emotion, Emotion expression, Observation, Primary school, Teacher's emotions

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Introduction

Emotion definition

Emotions are complex psycho-physiological processes triggered in an individual as a response to a subjectively important event (Lazarus, 1991). They include specific sequences of physiological changes, cognitive processing, verbal and non-verbal expressions and behaviour or action tendencies (Oatley & Jenkins, 1996). Emotions can be viewed from many different perspectives (Cole, Martin & Dennis, 2004). Some authors (e.g., Bronfenbrenner, 1986, in Schutz, Cross, Hong & Osborne, 2007; Hargreaves, 2000; Hochschild, 2008; Kelchtermans, 2005; Zembylas, 2005) emphasise the importance of social factors in their structuring, including influences ranging from the individual's microsystems (i.e., family, friends) to his or her macrosystems (cultural values, historical influences). However, some other authors (e.g., Izard, 1991; Lazarus, 1991) stress the role of the individual's internal characteristics in the emergence of emotions, such as temperament, expectations or personal resources.

Previous studies on emotions have focused on different aspects of the emotional process, such as emotion understanding, recognition, regulation or expression (e.g., Grazziano, Reavis, Keane & Calkins, 2007; Gross & Thompson, 2009; Harris, 1996; Siegel, 1999; Smrtnik Vitulić, 2009), including various dimensions of emotions: valence, intensity, duration or context suitability. The majority of authors (e.g., Fredrickson, 2004; Lamovec, 1991, Oatley & Jenkins, 1996) have employed the "positive" and "negative" categorisation of emotions regarding their valence. When a subjectively important goal or expectation is accomplished or fulfilled, positive emotions are experienced (i.e., joy, pride); on the other hand, when an important goal is not accomplished or expectation not fulfilled, negative emotions appear (i.e., anger, sadness, fear). However, the valence of the emotions may not be confused with their usefulness: both positive and negative emotions may have an important adaptive function, since they enhance the individual's response to an important situation (e.g., Lazarus, 1991). In order to prevent possible confusion between the valence and usefulness of emotions, the pleasant-unpleasant categorisation was employed in the present study, instead of the positive-negative categorisation of emotions.

Teachers' emotions in the classroom

For teachers, it is not enough to have only academic knowledge and good teaching skills, it is also important to have emotional knowledge and skills

for effective work with students. Emotions influence teacher-student interactions and shape the classroom atmosphere (Meyer & Turner, 2007). Teachers' effective emotional skills may contribute to their good relationships with students, thus supporting students' adjustment to, and performance in, school, encouraging their learning process and motivation, as well as their memory and creativity (e.g., Frederickson, 2004, 2005; Lamovec, 1991). The cognitive "scaffolding" is held together with emotional bonds (Woods & Jeffrey, 1996, in Hargreaves, 2000). Emotional bonds are emphasised more in elementary school, where a greater psychological and physical teacher-student closeness can be found (Hargreaves, 2000). On the other hand, the same author describes secondary school as characterised by greater psychological and physical distance, which may lead teachers to treat emotions in the classroom as intrusions.

Typically, emotions begin with the individual conscious or unconscious assessment of the personal meaning (appraisal) of some antecedent event (Lazarus, 1991). Thus, which emotions are experienced by teachers depends upon their appraisals of classroom situations. These appraisals are influenced by their individual goals and expectations, personal resources and previous experience (Sutton, 2007). Teachers' expectations regarding their own work are often unrealistically high, such as being prepared for and reacting effectively to every disciplinary issue, being able to motivate any student for schoolwork or being fully responsible for students' academic achievement (Gordon, 1997). These expectations often refer to their emotion experience and expression, as well and sometimes even including opposing convictions regarding which emotions should appear, when or how. Hosotani and Imai-Matsumura (2011) have identified two "ideal teacher" images appearing in teacher's expectations, namely the *calm* and the *emotionally expressive* teacher. In the first case, the teacher believes that any unpleasant emotion in the classroom is inappropriate, and thus refrains from its expression. The ideal of the calm teacher who excludes unpleasant emotions can lead to emotion suppression and be a source of subsequent unpleasant emotions, e.g., feeling guilty because of experiencing anger. On the other hand, the teacher who believes in the "emotionally expressive teacher ideal" always tries to express all emotions and uses them to evoke emotions in children. This ideal image can be a source of unpleasant emotions to teachers as well, since the ideal criteria cannot always be reached. "Ideal teacher" images are mostly a consequence of expectations of the social environment, including colleagues, students' parents, school management, school politics, cultural setting, etc. (e.g., Hosotani & Imai-Matsumura, 2011; Schutz et al., 2007; Zembylas, 2004, 2005).

While working with students, teachers often experience and express different pleasant and unpleasant emotions, from joy to disappointment and anger

(e.g., Chang, 2009; Cowie, 2011; Day and Leitch, 2001; Hargreaves, 2000; Hosotani & Imai-Matsumura, 2011; Kelchtermans, 2005; Moè, Pazzaglia & Ronconi, 2010; Shapiro, 2010; Zembylas, 2004). Several studies of teachers' emotions in the classroom (e.g., Hosotani & Imai-Matsumura, 2011; Shapiro, 2010) have confirmed joy as the most frequently experienced pleasant emotion, whereas anger is the most frequent among the unpleasant emotions. Teachers' emotion experience and expression in the classroom are commonly triggered by students' learning process and achievement or by disciplinary problems. For example, Hosotani and Imai-Matsumura (2011) have reported that teachers felt *angry* when students were not following instructions, not motivated, not doing their best, etc., whereas teachers felt *joy* because of students' achievements and autonomy, during pleasant daily interactions with them, etc.

Teachers develop different strategies to regulate their emotions in the classroom, including changes in emotion valence, intensity or time course. Consequently, teachers' emotional expressions in front of children may be different from their authentic emotional experience. In Hosotani and Imai-Matsumura's research (2011), teachers mostly reported conscious control of the intensity of expressed anger. The second most frequent way of dealing with anger in teachers was its suppression. Nevertheless, some teachers admitted sometimes losing their temper and expressing their genuine anger towards students. In the same study, teachers reported expressing joy either authentically or as a tool to influence the student's behaviour (e.g., supporting the student's further endeavour), but also reported suppressing joy when they considered it may decrease the student's motivation for school work. Krevans and Gibbs (1996) critically discuss the practice whereby adults intentionally express emotions in order to condition children's behaviour, identifying it as problematic.

Studying teachers' emotions in the classroom represents an important issue in order to enhance the quality of their work with students. As mentioned above, emotions include different physiological and cognitive processes that are expressed in different ways. Some aspects of emotions can only be reached through self-reports (i.e., interviews, dairies, questionnaires), while others can be reached *via* their external observation. Studies applying introspective reports offer data on more subjective aspects of emotional experience and expression in the classroom (e.g., Hosotani & Imai-Matsumura, 2011; Zembylas, 2004, 2005), while those applying the observational approach provided data on external indicators of emotional processes. The verbal and non-verbal expression of emotions is actually the most important guide for the external recognition of someone's emotions. In the classroom, the teacher's emotion expressions are a source of information about his or her emotions to the students, guiding

their response to the teacher. This is the reason for choosing an observational approach to teachers' emotions in the natural setting (classroom) in the present study.

The goals of the present study are multifarious. We want to establish: (1) which emotions are expressed by primary school teachers in their interactions with students in the first five grades, with the two most frequent emotions being analysed in greater detail, comparing the results of the first five grades, (2) what situations trigger these two emotions, (3) what the level of their intensity is, and (4) how suitably these two emotions are expressed. The comparison of results gathered in the observation of teachers of different grades will be performed, because the characteristics of work with students of different ages vary in terms of the level of emotional exchange (e.g., Hargreaves, 2000; Papalia, Wendkos Olds & Duskin Feldman, 2009).

Methodology

Participants

Teachers' emotions were observed by first year students of primary education during their practical experience work in the classroom. Each student did practical experience work at the primary school of her/his choice, mostly in their hometown. In this way 93 primary schools from various Slovenian regions were included in the study. The headmaster of the school then selected the classroom for student's practical work (first to fifth grade). Observations of 107 female teachers and one male teacher were gathered, in the first ($N = 24$), second ($N = 21$), third ($N = 29$), fourth ($N = 20$) and fifth grade ($N = 14$).

Measure and procedure

The data were collected by students of primary education of the Faculty of Education in Ljubljana. They participated in a special two-hour educational course on emotion recognition and description. During this course, they were also trained to use an observational scheme that included the type of emotion, a situation description, the emotion's verbal and non-verbal expression (including behaviour) and the responses of others participating in the interaction. The scheme also included the categories of intensity and suitability (how adequate a certain emotion expression is in a certain context) for each emotion, marked on a 5-point Likert scale (from 1 – *very weak* to 5 – *very strong*, and from 1 – *very unsuitable* to 5 – *very suitable*, respectively). Students used the described

scheme to observe and record teachers' emotions in the classroom. Each teacher's emotion was recorded when it occurred, in chronological order. If a certain emotion appeared more than once, it was recorded each time.

Students visited the selected classroom for five days during their practical experience work. During their fourth visit, they observed teachers' emotions for five hours in one school day. The teachers were informed about the goals of the students' practical experience work, including the observation of their work in general. After the observation of their emotion expressions, the teachers were fully informed about the study and consented to the use of the data.

The data collected by the students was checked by all three authors of the present article regarding the clarity of descriptions in all observed categories. For the purposes of the article, the following results will be presented: the type of emotion and – for the two most frequent emotions – the situations triggering them, their intensity and suitability. The statistical procedures for each particular section of the study are described simultaneously in the results' sections below.

Results and discussion

To explore primary teachers' emotions in the classroom, we analysed the type of emotions expressed by teachers in their interactions with students, the triggering situations of the two most frequent emotions, and their level of intensity and suitability. Certain attention was dedicated to a comparison of results regarding the grade that the teachers were working in, which ranged from the first to the fifth grade of primary school.

Teachers' expressed emotions

The results show that teachers express various emotions in the classroom, some very frequently and some less frequently.

Table 1: The frequency of teachers' expressed emotions in different grades.

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Together
Pleasant						
Joy	38	31	39	27	16	151
Surprise	8	8	2	4	3	25
Pride	3	3	3	1	2	12
Σ (pleasant emotions)	49	42	44	32	21	188
Unpleasant						
Anger	65	49	64	50	34	262
Disappointment	12	8	18	8	6	52
Fear	5	4	9	1	1	20
Sadness	2	5	2	1	1	11
Shame	0	0	4	1	0	5
Guilt	0	1	2	0	0	3
Σ (unpleasant emotions)	84	67	99	61	42	353
Σ (all emotions)	133	109	143	93	63	541
<i>M</i>	5.54	5.19	4.93	4.65	4.50	5.01

Note: N of all teachers = 108 ($N_{\text{first grade}} = 24$, $N_{\text{second grade}} = 21$, $N_{\text{third grade}} = 29$; $N_{\text{fourth grade}} = 20$, $N_{\text{fifth grade}} = 14$); M = average frequency of all emotions

Studies of teachers' emotions in school (e.g., Chang, 2009; Hargreaves, 2000; Hosotani & Imai-Matsumura, 2011; Kelchtermans, 2005; Shapiro, 2010) have reported that teachers experience and express pleasant and unpleasant emotions. Our study confirmed these results. There were nine different emotions recorded in the observation of teachers in grades one to five (Table 1): among pleasant emotions were joy, surprise and pride, while among unpleasant emotions were anger, disappointment, fear, sadness, shame and guilt.

In all grades, there were more unpleasant emotions detected (353 times) than pleasant emotions (188 times). The overall ratio between pleasant and unpleasant emotions was approximately 1:2. One of the important contemporary researchers in the field of emotions, Frederickson (2008), recommends a ratio of 3:1 in favour of pleasant emotions. For an individual to maintain an overall positive ratio between the emotions, one needs to compensate for unpleasant emotions with three times the amount of pleasant emotions, since unpleasant emotions influence the emotional balance more. Pleasant emotions increase the individual's physical, intellectual, motivational and social resources, which is why it is especially important to encourage the expression of pleasant

emotions in the classroom. Pleasant emotions in teacher-student interactions may contribute to a pleasant atmosphere in the classroom, supporting students' competence and autonomy (Meyer & Turner, 2007). However, our results, showing approximately twice as many unpleasant emotions as pleasant emotions, are not in line with Frederickson's recommendation. The question is how such a predominance of unpleasant emotions reflects in teachers' work and in classroom atmosphere. Teachers' expression of pleasant emotions should be encouraged (Sutton, 2007), but it is important to consider their authenticity and sensitive placement.

Of all of the detected emotions, anger was the most frequently reported emotion (262 times), followed by joy (151 times). These results can be linked to the findings of Hosotani and Imai-Matsumura (2011) and Shapiro (2010), according to which anger was the most frequent unpleasant emotion of teachers in the classroom, while joy was the most frequent pleasant emotion. This is why these two emotions will be analysed in greater detail in the following sections of the present article.

As mentioned above, besides joy and anger, other pleasant and unpleasant emotions were expressed by teachers in the present study. The frequencies and the most common triggering situations of each emotion will be stated. Among pleasant emotions, besides joy, there were surprise ($N = 25$), when students did something pleasant or achieved unexpectedly, and pride ($N = 12$), when students' academic performance was excellent. Among unpleasant emotions, besides anger, teachers also expressed disappointment ($N = 52$) or sadness ($N = 11$), both when students did not fulfil teachers' expectations, and fear ($N = 20$) when students were in danger. Shame ($N = 5$) and guilt ($N = 3$) also appeared, triggered by teachers' perceived incompetency, but only in some grades.

There was a trend of slight decrease in the average frequency of teachers' expressed emotions from grade one to grade five, as shown in the last row of the Table 1. Hargreaves (2000) found that teachers' emotional expressiveness decreased with their students' age when comparing primary and secondary school teachers. Teachers in lower grades established closer emotional bonds with their students as a foundation for teaching and learning (Hargreaves, 2000). A similar argument may be applied to the results of the present study, where teachers' emotional expressiveness decreased from grade one to grade five.

Frequencies and triggering situations of joy and anger in different grades

As already mentioned, joy and anger were the two most frequent emotions that teachers expressed in the classroom. Lazarus (1991) defines joy as a pleasant emotion that people experience when they conclude they have accomplished a subjectively important goal. Anger is an unpleasant emotion that is generated by a judgment that someone could and should have done otherwise (Weiner, 2007).

Further analyses of these two emotions were performed, including the triggering situations of joy and anger and the average frequency of teachers' expressions of these two emotions from grade one to grade five (Table 2). Students' descriptions of the situations that triggered teachers' emotions were reviewed by all three authors of the study and organised into six response categories for joy and another six response categories for anger. Each description was then placed into one of these categories.

Table 2: The frequencies and triggering situations of joy and anger in different grades.

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Together
Joy						
Achievement	16	13	16	10	3	58
Funny events	7	8	4	10	6	35
Relaxation	5	3	10	4	3	24
Following instructions	4	6	4	3	2	19
Novelty	3	0	4	0	2	9
Others	3	1	1	0	0	5
Σ (joy)	38	31	39	27	16	151
<i>M</i> (average frequency of joy)	1.58	1.48	1.35	1.35	1.14	1.40
Anger						
Lack of discipline	28	26	19	19	12	104
Not following instructions	15	12	17	15	10	69
Inattention	14	8	21	8	9	60
Underachievement	2	1	2	6	2	13
Danger	5	0	2	2	1	10
Others	1	1	3	0	0	5
Σ (anger)	65	48	64	50	34	261
<i>M</i> (average frequency of anger)	2.71	2.29	2.21	2.50	2.43	2.42

Note: *N* of all teachers= 108 ($N_{\text{first grade}} = 24$, $N_{\text{second grade}} = 21$, $N_{\text{third grade}} = 29$; $N_{\text{fourth grade}} = 20$, $N_{\text{fifth grade}} = 14$)

In other studies of teachers' emotions in the classroom, authors (e.g., Chang, 2009; Hosotani & Imai-Matsumura, 2011; Shapiro, 2010) have reported that joy and anger were commonly triggered by students' learning process and achievement or by disciplinary issues. For example, Hosotani and Imai-Matsumura (2011) have reported that teachers felt *joy* because of students' achievements and autonomy or during pleasant daily interactions with them, and that teachers felt *anger* when students were not following instructions, not motivated or not doing their best.

The results in the present study show that teachers' joy and anger were aroused in various situations. In the case of joy, triggering situations included: students' achievement ($N = 58$, i.e., a student calculates correctly; a student does her homework), funny events ($N = 35$; i.e., a student tells a joke), relaxation ($N = 24$; i.e., a student celebrates his birthday; students play), following instructions ($N = 19$; i.e., students tidy the classroom; a student brings the required equipment), novelty ($N = 9$; i.e., a student brings an interesting toy) and a few other situations ($N = 5$; i.e., a vet's visit to the classroom).

The average frequency of teachers' expressions of joy decreased from grade one to grade five. Such a trend can be explained similarly to the trend of decreasing overall emotion expression mentioned above in the present study and potentially explained by Hargreaves (2000): working with younger students is characterised by the teacher's greater psychological and physical closeness to them, resulting in his or her more frequent emotion experience and expression. Another reason for the decreasing trend of joy expression from grade one to grade five in the current study may be connected to the issue of students' achievement, since this was the most frequent triggering situation of joy. Why did teachers express more joy at younger students' achievements than at the achievements of older students? Is it because teachers believe that expressing joy at students' achievements is a greater motivational factor for academic performance in younger than in older students? It may also be that teachers' expectations regarding students' achievements grow with students' age, allowing less room for joy.

In our study, in grades one to five the majority of teachers expressed joy once during the observation (modus = 1 for each grade). For different grades, teachers' expression of joy ranged from zero to seven. This range indicates that joy expression varied among the teachers. The question is how the frequency of joy expression contributes to teacher-student interactions in the classroom, especially if there is no joy expressed by a teacher or when the joy is expressed abundantly.

Teachers expressed anger when students lacked discipline ($N = 104$; i.e.,

students are fighting with each other; a student pinches her neighbour; students are restless), were not following instructions ($N = 69$; i.e., a student does the exercise incorrectly because she did not follow the teacher's directions), were inattentive ($N = 60$; i.e., a student loses his belongings), did not perform well academically – underachieved ($N = 13$; i.e., a student does not know the answer when asked), were in danger ($N = 10$; i.e., a student pushes someone, students jump from a very high object) and in a few other situations ($N = 5$; i.e., a student rebels).

The average frequency of teachers' expressions of anger decreased from grade one to grade three ($M_{\text{first grade}} = 2.71$, $M_{\text{second grade}} = 2.29$, $M_{\text{third grade}} = 2.21$) but increased again in grades four and five ($M_{\text{fourth grade}} = 2.50$, $M_{\text{fifth grade}} = 2.43$). This may stem from various sources. The decrease in anger expression from grade one to grade three may be explained by the fact that a lack of discipline was the most frequent situation triggering teachers' anger. Perhaps such situations decrease, as with age children gradually gain social competencies due to increasing self-regulatory capacities and learn how to respond to disciplinary demands by generating strategies for negotiation and handling social conflicts (e.g., Papalia et al., 2009).

But why did anger appear again more frequently in the fourth and fifth grades? It may be that this is facilitated by school subjects becoming increasingly difficult in higher grades (Woolfolk, 2002), and by the change from descriptive to numerical assessment of students in the fourth grade in Slovenia. In line with this, teachers may feel more responsible for students' achievement and are therefore more often angry if students do not follow their guidance regarding school work. This may be seen from the quite frequently detected anger triggering situations in our study, such as "not following instructions" and "inattention". Shapiro (2010) assumes that teachers' sense of powerlessness in accomplishing their educational goal may also contribute to their anger.

Similarly as noted previously for joy, anger expression also varied among teachers. In different grades, the majority of teachers expressed anger once or twice during the observation (modus = 1 for first and fourth grades; modus = 2 for the second, third and fifth grades), with teachers' expression of anger ranging from zero to ten in different grades. The lowest frequencies of anger expression may indicate the teacher's satisfaction with the students' behaviour, while the highest frequencies may have the opposite meaning. Perhaps rare or frequent anger expression is also connected to teachers' "ideal teacher" images (Hosotani & Imai-Matsumura, 2011). Teachers who see any unpleasant emotion (i.e., anger) in the classroom as inappropriate refrain from its expression. On the other hand, teachers with an "emotionally expressive" ideal always try to show all of their emotions, using them to evoke emotions in students.

The intensity and suitability of joy and anger in different grades

The two most frequently expressed emotions in our study, joy and anger, were also compared regarding their level of intensity and suitability.

Intensity represents a dimension of emotions describing the power of their expression. In our study, it was marked on a five-point Likert scale, ranging from *very weak* (1) to *very strong* (5) expression. Suitability is another dimension according to which emotions can be explored. It concerns the notion of how adequate a certain emotion expression is in the specific context in which it appears. An example of a highly inadequate emotion expression would be the teacher shouting at the student when he or she unintentionally dropped a pencil. In our study, suitability was appraised from *very unsuitable* (1) to a *very suitable* (5).

Table 3: Descriptive statistics of the intensity of teachers' joy and anger in different grades and ANOVA results.

	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		ANOVA		
	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>								
Joy	3.28	1.09	3.97	1.02	3.51	1.14	3.37	.88	3.50	.89	4	2.06	.09
Anger	3.25	1.19	3.47	1.14	3.33	1.02	3.16	1.04	3.21	.91	4	.62	.65

In all grades, the intensity of joy and anger expressions was above the middle on the 5-point scale used for its assessment. The intensity of joy was slightly higher than the intensity of anger. For both emotions, the results of one-way analysis of variance regarding the intensity of teachers' joy and anger expressions in the classroom revealed no significant differences in this dimension throughout the first to the fifth grade. These results suggest that teachers' joy and anger expression in all grades were moderate.

Table 4: Descriptive statistics of the suitability of teachers' joy and anger in different grades and ANOVA results.

	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		ANOVA		
	<i>M</i>	<i>SD</i>	<i>df</i>	<i>F</i>	<i>p</i>								
Joy	4.53	.86	4.71	.63	4.49	.82	4.63	.57	4.31	.95	4	.89	.47
Anger	3.91	1.18	3.82	1.30	3.95	.98	3.94	1.06	3.76	1.10	4	.24	.92

In all grades, the suitability of joy and anger expressions was quite high (around 4 on the 5-point scale). On average, the suitability of joy was close to its

highest level and the suitability of anger was only slightly lower. For both emotions, the results of ANOVA regarding the suitability of teachers' joy and anger expressions in the classroom again did not reveal any significant differences in this dimension throughout the first to the fifth grade. In line with these results, it can be concluded that students assessed teachers' joy and anger expression in all grades as highly suitable.

Notwithstanding, a number of questions are facilitated by the contents of the dimension of suitability itself. Suitability is a complex dimension, since it simultaneously includes both the evaluation of the emotion expression and the context. Furthermore, suitability may be closely linked to the expectations that teachers have regarding themselves, which are affected by their "ideal teacher" images. Moreover, in the present study, the observers were future teachers and their "ideal teacher" images may have contributed to their assessment of teachers' emotion expression suitability as well. The high values of suitability rates are perhaps indicative of a concordance between the aforementioned ideal images of the teachers in the classroom and the "future" teaching professionals. The suitability dimension could also be influenced by the social and cultural expectations and rules on which, when and how emotions should occur.

Conclusions

The present study centred on teachers' emotions that are often insufficiently represented in educational research, even though emotions are an integral part of "school life" (e.g., Jacobs & Harvey, 2010; Zembylas, 2004). The results of the study indicate that primary school teachers from grades one to five express various pleasant and unpleasant emotions, with unpleasant emotions prevailing. The frequency of teachers' unpleasant emotions was higher than that of pleasant emotions, which fails to achieve the recommended ratio of 3:1 in favour of pleasant emotions (Fredrickson, 2008). The average frequency of teachers' emotion expression decreased from grades one to five. Overall, anger was the most frequently expressed emotion ($N = 261$), followed by joy ($N = 151$). The intensity of expressed joy and anger was moderate in all five grades, while the assessed suitability of these two emotions was high.

Teachers' anger was aroused mostly in situations when students lacked discipline, were not following instructions or were inattentive. Such triggering situations showed the importance of discipline for teachers and raised the question of teachers' coping strategies in managing discipline in their classroom. The second most frequently expressed emotion, joy, was mostly triggered by situations of students' academic achievement. This may be connected

to teacher's feeling of responsibility for students' achievement. The teacher is responsible for the quality of teaching but cannot take full responsibility for the students' achievements, even though this line is hard to draw and requires an awareness of teachers' individual beliefs and reflection upon them.

The results of our study have many implications for (future) teachers and for the professionals working with them. In this respect, teacher-oriented education programmes should include different emotion-related content. By encouraging teachers to become aware of the underlying appraisals they give to certain student behaviour through their emotions, we may enhance their emotional understanding and, where necessary, stimulate a change in their "emotional rules" (Chang, 2009; Zembylas, 2004). The process of change is sometimes difficult and may take a long time (Moè et al., 2010). In teacher-oriented education programmes, we can promote the development of emotion regulation strategies, especially regarding unpleasant emotions, which may help teachers to improve teaching and learning in their classroom (e.g., Cowie, 2010; Ishak, Iskandar & Ramli, 2010). The efficient emotion regulation of teachers contributes to better teacher-student relationships, as well as representing a model for students (Bandura, 1997).

The strength of the present study was the application of the observational approach to emotions, providing for an external view of teachers' emotions. The observational approach supplements the more commonly used self-reports (e.g., Hosotani & Imai-Matsumura, 2011; Zembylas, 2004, 2005). Another advantage of our study was the observation of many different aspects of emotion. Besides this, teachers in our sample came from 93 different schools from various parts of Slovenia. However, the one-person observation of teachers' emotions, leaving more space for the observer's subjectivity, was a weakness of the study. Further research could include a longitudinal approach providing information on the development of teachers' emotions over time. The comparison of teachers' self-perceptions of their emotional process and/or their students' perspective on this matter could also be considered. Further research could also combine the observation and (self)experience of teachers' and students' emotions.

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Kovacs-Cerovic, T., Vizek-Vidovic, V. and Powell, S. (2011). *Parent participation in the life of schools in South East Europe*. Ljubljana: CEPS. ISBN 978-961-253-063-1.

Review by DRAGICA PAVLOVIĆ BABIĆ

Parents and School – Partners or Casual Acquaintances?

Are parents active partners in the educational process? Do they participate in daily school life? Are they asked to make decisions that determine the quality of education and the quality of educational outcomes? As a parent or as a person involved in education in any of SEE countries, you could probably guess the answers to these questions, and it is likely that you have a strong sense of their importance. The monograph “Parent Participation in the Life of Schools in South East Europe,” recently published by the Centre for Educational Policy, reports systematic findings of a three-year research project conducted in ten SEE countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Macedonia, Moldova, Montenegro, Romania and Serbia. This research was conducted on regional and national levels. Although dealing with a relatively unexplored issue, the authors, Tünde Kovacs-Cerovic, Vlasta Vizek-Vidovic and Steve Powell, based their research conceptually on the following suppositions: parent participation in education contributes to its quality and equity; the role of the parent in real school life is underestimated; and the parent’s role in education is an underexplored area, at least with regard to SEE countries.

The foundation of the research design is instruments and methodological solutions inspired by, and directly derived from, relevant contemporary theoretical views of parent involvement. In the short introduction, the authors briefly and clearly review some models of the parent involvement process (Hoover-Dempsey) and conceptualisations of family-school partnership (Epstein, Sheridan & Kratochwill). Inspired by theoretical models, the authors define three crucial perspectives connected with parent participation: 1) dimensions of parent participation, 2) role attribution between schools and parents, and 3) the participation process. However, the central research topic is dimensions of parent participation. The operationalisation of these dimensions is inspired by one of the most influential frameworks of parent involvement, as proposed by Epstein, which includes six main types of activities that connect families, schools and communities, focusing on the key role of the child as a student in

interactions between families and schools, parents and teachers, or the community. The examined dimensions are: parenting, communicating, learning at home, volunteering, decision making and collaboration with the community.

The instruments were developed, and the methodological solutions defined, based on theoretical models. It is typical for research in the field of education to use a simple methodology and there is a tendency to decrease the number of variables included in order to ensure the reliability of the conclusions. In the present case, however, the authors' strategies differ significantly. The methodology is exciting in various ways: the combination of quantitative (survey) and qualitative (focus groups, face-to-face interviews, content analysis of legislation) approaches answers the questions "why?" and not only "how many?"; the research instruments were directly inspired by theoretical viewpoints; there are two perspectives (principals' and parents') and four angles (mainstream parents, excluded groups of parents – mainly Roma parents, representatives of mainstream and excluded groups of parents); and the involvement of ten countries, each represented by stratified random samples.

The main structure and size of the sample is impressive for this type of the research. In short, the sample plan adheres to the following outline: Sample A (mainstream parents): 9,058 – from 784 to 936 parents per country; Sample E (excluded parents sample): 504; Sample B (mainstream parents representatives): 1,354; parent representatives from Sample E school: 85. This way, the authors provide research findings reliability, even in the case of traditionally excluded parents, such as Roma parents.

In accordance with the three main perspectives, the major research findings are reported comparatively for each participating country using graphs, following the structure of the research instruments. The research findings are displayed clearly and comprehensibly, graphic data representation is used efficiently, and the authors successfully avoided the trap of excessive redundancy. In short, the authors display methodology and data fluently and a way that is easy to understand. As expected, it was found that schools do not recognise parents as partners and important resources in any way, with the repertoire for practicing participation consisting of the most traditional forms, such as class meetings and periodical reports. On their part, parents reported the highest interest in participation, but they perceive a typical parent more as an obstacle than an active partner: she or he does not know how to communicate and does not have time. Roma parents are even more excluded than the majority parents, and schools are unaware of, and fail to use, one of the most effective mechanisms for overcoming marginalisation. However, parent representatives are recognised as successful promoters of parental interests, thus their main

role is to reduce the distance that exists between schools and parents. Data even indicate that parent representatives depend on their personal skills and readiness to be engaged, since they lack any systemic support.

Finally, conclusions and suggestions are drawn directly from the research findings. They are formulated in order to reduce the gap between schools and parents, and to provide the space for parents to contribute to better educational outcomes:

- all policy makers, national and local, should invest time and plan action to attract and activate parents to be involved in all of the various dimensions of the educational process;
- the role of parent representatives should be better incorporated and established by national policies, including the selection process and systematic trainings; and
- parents from vulnerable groups, especially Roma, require special effort in order to increase their participation.

Thus we have finally acquired a study that deals with the issue of parent participation in education; moreover, it includes the participation of traditionally excluded groups (e.g., Roma), an issue not evaluated by any research until now. In the context of the efforts made by education systems from this region to advance the equity and inclusivity, as well as the quality, of education, issues such as parents are becoming inevitable topics. The research study in question provides relevant findings and conclusions of vital importance for the creation of further education policies, both in the region as a whole and in each participating country.

Arthur, J. and Davies, I. (Eds.) (2010). *The Routledge Education Studies Reader* (2010). New York: Routledge. 374 p., ISBN 978-041-548-236-3.

Reviewed by NIKA ŠUŠTERIČ

“We wanted something that would stimulate this varied group of students to continue asking questions and developing provisional answers about some of the major issues that affect and characterise education.”

James Arthur and Ian Davies

The Routledge Education Studies Reader 2010, 1

For the last 15 years or so, the field of education has gained new strength, as is persuasively testified to by the renewed lively interest in education from both politicians and the broader public. The development and establishment of new study programmes, such as education studies, education policy studies, etc., and the increased publication of books and readers whose primary aim is to provide an introduction to these fields for students of such programmes, are further signs of this invigoration. Amongst the latter is *The Routledge Education Studies Reader*, edited by James Arthur and Ian Davies, accompanied by *The Routledge Education Studies Textbook*, edited by the same authors, both of whom are experts in the field of education and/or education studies.

According to the editors, the *Reader's* purpose is not to be exclusive, and this goal is successfully achieved; nevertheless, it first and foremost targets students of education studies who have completed at least one year of studies and are thus probably already acquainted with some of the field's “classics”.

Examining the structure of the *Reader*, it is obvious that the editors bore in mind their target readership. It is transparently divided into three major sections, which will help readers to organise their thoughts on the diverse issues of education studies.

The first section, entitled *Foundations of Education*, is an adequate introduction to the other sections and to the texts in the *Reader*, as well as to the study of the field of education itself. The first text, by G. McCulloh, engages with the nature of education studies, thus providing a meaningful passage to the following texts. The next subchapters furnish the reader with an insight into the various points of approach to the questions of education; namely, the perspectives of those disciplines that are crucial for understanding education and its processes, the so-called “*foundation disciplines*” – history, philosophy,

psychology and sociology. Although all of the texts in the *Reader* are accessible to all types of readers, even to “newcomers”, some of them, especially those in Section 1, require more effort. However, the understanding of these texts is essential for a more appropriate conceptualisation and elucidation of the other texts. One such example is the chapter *Learning: Meaning, Language and Culture*, originally published in the book *Making Sense of Education: An Introduction to the Philosophy and Theory of Education* by D. Carr. The text discusses the concept of understanding, while also pointing out the effects and consequences that different conceptions of the elements of education position as the processes and goals of education, as ultimately it is these conceptions that underlie specific education policies. If Carr’s reconsiderations of the given subjects appear to be somewhat difficult or too abstract for a young reader, it is very likely that the meaning of these approaches will become clearer after reading the text by Brian Simon. In his article *The History of Education: Its Importance for Understanding*, Simon sets out an argument about the meaning of knowledge of the history of education. One of the crucial factors that enables theorists and practitioners to understand and identify the lines of force crossing the field of education is knowledge of the development and historical transformations of education. Through this moment, Simon helps us to realise the changes that have crossed education and the issues that affect it, as well as the fact that education does not rest peacefully on its islands of autonomy, but is rather the site of numerous struggles. And these problems and phenomena, as the reader will probably realise, can only be grasped and conceptualised with the complex means of foundation disciplines. In this way, the *Reader*, with the texts selected, encourages readers to critically investigate the everyday self-evidences that have managed to find their way into the very formation of education policies.

In the second part, entitled *Contexts: Making Education Work*, we can find texts by various authors, both classical and contemporary, discussing particular elements of, or dilemmas arising in, the field of education. The texts cover subjects such as education policies, curriculum, pedagogy, faith-based education, private education, etc. One of the *Reader’s* advantages is that it manages to introduce specific problems from different points of view and theoretical positions, thus making it less biased. This offers a certain broadness to the reader, but perhaps it could also be a trap for those who have not yet acquired enough knowledge of the area to make sense of, and critically reflect upon, the selected texts.

In addition, the section provides readers with articles that debate relatively unexplored educational phenomena of today. A representative of such debates is the text by R. Mason and F. Rennie, which explores various online

resources and communication tools that can represent a significant contribution to education. Also published in this section is an extract from J. Dewey's famous *Democracy and Education* – the part of his work entitled *Education as a Social Function* – and a section from J. Holt's book, *How Children Fail*.

Last but not least, the third section, entitled *Doing Education Studies*, covers the area of research in the field of education. To quote the editors: “*Research is not conducted in tranquil settings by intellectuals who seek some sort of lofty disinterestedness.*” (ibid. p. 2). The area of research is no exception when it comes to the clash of different ideas and interests. It faces serious conflicts regarding the conceptualisation and methods appropriate for researching the field of education. Bearing this in mind, the three selected texts debating this matter are more than suitable. The first text, by P. Davies, entitled *What is evidence-based education?*, speaks of the concept referred to in the title and its contribution to improving educational practice, thus pointing out the effect and importance of quality research conducted in the field. By highlighting these aspects, the author successfully distances research activity from the aforementioned academic disinterestedness and exposes the potential for the everyday practical use of research results and the conditions of such use. N.L. Gage's text is yet another piece that is in accordance with the editors' wish for the *Reader* to be a springboard for further questioning and exploration. As the title itself suggests, Gage points out a peculiar obviousness to the results of social and educational research, which can have a significant influence on the motivation of research in these fields. However, Gage shows that the feeling of obviousness is certainly not automatically trustworthy.

The choice of texts and authors, as well as the structure of the *Reader*, demonstrate the fact that the editors know how to avoid losing sight of the purpose of the book. The short introductions that appear before each text turn out to be quite handy for beginners. Prior to each text there is a short description of the author and his or her works and fields of interest, as well as a few sentences about the text that follows. This gives young readers an opportunity to gain a quick insight into the text, as well as facilitating selective reading for those who already have some mileage in this sort of literature. This part is followed by a short segment entitled *Key Questions*, a variant of a feature that is becoming standard practice in this sort of reading material. In view of the editors' claim that they have “*shaped the Readings in ways that are intended to encourage critical reading*” (ibid., p. 3), and taking into account the target population of the *Reader*, i.e., students who have already come to terms with the field of education to some extent but are still involved in a study programme, as well as the assumption that reading strategies are something to be learned, this

short fragment represents a welcome aid to young readers who are still becoming accustomed to critically reflecting on what they have read. It consists of a few questions that, although perhaps a bit general in places, can still be seen as a support for young readers – something that they will gradually dismiss as they learn to consider similar questions on their own. The next part is entitled *Further Reading* and directs readers to other literature concerning the topic by relevant author(s), an addition that is thus quite convenient for a varied group of readers. Just before the beginning of the text there is a note that links the given reading with corresponding chapters in the *Textbook*.

In summary, the *Reader* meets its goals and purposes. As a whole, it is indeed student-friendly and will surely attract the attention of more experienced readers or teachers, while there is no doubt that the *Reader* is one of only a few works seeking to introduce the field of education to beginners. For many readers, it just may be an effective gateway to, and insight into, education studies. Its systematic way of introducing the basic educational issues, and its perspectives in discussing them, might come in even more handy for students who are getting to know this field in countries that have not yet established thorough education studies programmes. Even a quick overview of the contents provides readers with a rough idea of the complexity and interdisciplinarity of the field. The texts are well chosen and cover a wide range of subjects important for education and its processes. Among them we can find texts from some classical names, such as J. Dewey, J. Holt and J. Bruner, as well as from some well known contemporary names, such as B. Simon, D. Carr, R. Peters and many others. *The Routledge Education Studies Reader* definitely offers a good first (or second) taste – a taste that might just encourage many readers to ask for more.

Sahlberg, P. (out in November 2011). *Finnish Lessons: What Can the World Learn from Educational Change in Finland?*. New York: Teachers College Press. ISBN 978-080-775-257-9.

Reviewed by ANJA FRANKO

“What is worthy of note is that Finland has been able to upgrade human capital by transforming its education system from mediocre to one of the best international performers in a relatively short period of time.” (Pasi Sahlberg: Finnish Lessons: What Can the World Learn from Educational Change in Finland?)

Many policy makers in different countries nowadays wonder how they can improve their education system in order to make it more efficient, especially when it comes to student achievements. A lot of useful reflections are offered by Pasi Sahlberg in his latest book *Finnish Lessons: What Can the World Learn from Educational Change in Finland?* The title itself implies that this book is not just about boasting; on the contrary, it is obvious that the text includes more than one piece of advice for those who are willing to take it. The author leads us through the history of education in Finland, explaining who and what contributed to its development, how the changes were made and what is yet to be done in order to continue living ‘the Finnish dream’.

As a response to rapid changes in the economy, and to unequal educational opportunities, education reform in Finland commenced with the formation of the new *peruskoulu* – the Finnish word for nine-year comprehensive basic education – which was introduced in 1972. However, this did not attract much public interest until the beginning of the present century, when everything changed.

During the first PISA research in 2000, experts did not expect particularly high performance from Finnish students. Thus when as the results came out even the Finns were surprised, let alone other nations. Finnish 15-year-olds outperformed the majority of students from other participating countries – members of the OECD and partner countries/economies (43 countries took part in this research) – especially in reading, where they took first place. The results of the tests in science and mathematics were also promising, with third and fourth places respectively. In 2003, they even improved on the 2000 results, being ranked first in all three tests. All of these results ultimately convinced everybody that Finland had come up with a plan for the renovation of the school

system that was worth examining more closely. Sahlberg's book is one such examination.

Who is this book written for?

According to the author, the book is for people from different countries all over the world who are taking part in the education system at different levels. Readers who would find it especially useful are probably those who are in positions with the power to change things, for example principals or employees of the Ministry of Education. It is also suitable for teachers, as it is written like a kind of a story, making it a pleasure to read.

Sahlberg himself calls it a "teacher-centred saga". The book is perhaps even more important for people outside the education system – those who form the living conditions in today's societies. As the author explains, Finland could never have achieved such exceptional results without creating the proper circumstances first. This means putting equity above all other values – as he emphasises repeatedly – and making as many adjustments as possible for each individual. In short, one should read this book in order to understand that improvement similar to that made by Finland is not the outcome of a few ideas incorporated in the education system, but is a long term process that requires the modernisation of the everyday social environment and a preparedness for collaboration.

Pasi Sahlberg's point of view

One of the many advantages of this book is that Pasi Sahlberg does not just describe Finland's education system from afar, but lives and breathes it. He has a great deal of experience in teaching, so he understands the functioning of the school from inside. Even more importantly, he took an active part in planning the educational reforms, so he is familiar with the details that he has decided to explain to a circle of readers. Thus the book is especially interesting because it is written from an 'insider's' point of view.

Reading the book one can observe that certain theses are being consistently and convincingly developed. Sahlberg's 'Finnish Lessons' start with some general information about Finland's education system, enabling the reader to become familiar with the subject. After elucidating the topic, the author starts explaining what it took to bring this Nordic state to such a high level in terms of knowledge achievements. He offers us a summary of important past events, but he does not engage in too many details. Instead, he interprets reforms and changes that have influenced the Finnish school system, enabling it to become what it is today. He focuses more on the fields that are well-formed and distinct

from other countries and therefore worthy of special attention.

Pasi Sahlberg tries to present the path that Finland chose to take. His point of view is fresh and gives the impression that it is the objective result of research.

Through experience, Finns have discovered the importance of research when it comes to education. The author of this book is, of course, no exception. In order to present his statements and make things intelligible, he uses a considerable number of various diagrammatic representations and tables. These are easily understood, properly marked and really enlightening for the reader in terms of content. The data are mostly from the OECD PISA database, the TIMSS database and Finnish statistics, and are thus reliable and verifiable.

The author did not overlook the importance of good book structure. The text is divided into segments presented in a logical sequence, enabling the reader to find the information he or she is looking for. Where necessary, parts of chapters are numbered or marked in alphabetical order so that important items stand out. Subtitles are carefully chosen. The language is clear, convincing and suitable for multiple groups of readers.

Pasi Sahlberg is certainly not infatuated with the idea that the Finnish education system is perfect and needs no further remodelling in the future. He does not let anything compromise his judgment – he sees both the positive and the negative. In his opinion, there is always something to be done in order to make progress. The worst thing we can do is rest on present success. As he mentions several times, we must not forget that some of the ideas were borrowed from other nations and then complemented and designed in specific way. Moreover, he is not proposing that any other country ought to follow Finland's concepts, instead clearly stating that we can, and should, all learn from each other. Rather than persuading people to adopt the Finnish way of thinking when making reforms, he encourages others to come up with something new and different that would work for them. There is no single answer to the question: "How can we improve the education system?" and Sahlberg's book is based on this conviction. The author offers some pointers to those who are starting to work on education reforms but he wants them to come up with their own ideas, taking the particularities of their own nation into consideration. He suggests that when doing so they have to keep in mind that the renovation of the whole society is needed, as mentioned above.

Reflecting on unsuccessful education reforms, Sahlberg does not forget to present reasons why certain reform plans were not good, examining what was to blame for their failure to serve their original purpose. He is very realistic and does not rely only on his own opinion but rather considers eloquent proof.

He also compares the “Global Educational Reform Movement” with Finnish education policies, and presents what “others” were doing differently and why Finns were much more successful. This comparison is made in a table where one can easily draw a distinction between better and worse.

Moving on, readers might find the summary of important ideas presented in the last chapter useful. On the other hand, some readers might get the feeling that the author tends slightly to repeat himself, considering these ideas have been rather thoroughly interpreted in previous chapters. However, he is well aware of the fact that creating a good education system is not the same as preserving and maintaining such a system. So in this part of the text he not only writes about Finland’s previous strategies but also presents some of the concerns that might put their education system in jeopardy if not tackled properly. Furthermore, he offers four interesting solutions that may be useful in renovating the existing school system. He believes such renovation is inevitable for Finland in order to remain the shining example that others want to follow.

In conclusion...

The whole book is a pleasure to read and reminds us how it is not always good to follow someone else’s example. Sometimes we need to go our own way, even though it may be hard at the beginning – the results will repay the trouble. Pasi Sahlberg presents the Finnish way towards success and welfare, which is unique and thus even more interesting. He sends out a message of hope: it is possible to make changes for the better even though the circumstances are not ideal.

One thing remains certain: Finland is known to the public as a country with a highly efficient education system and everyone is aware that this cannot be just a coincidence or sheer luck. After reading Sahlberg’s book, it is obvious that the reforms and changes that led to the present situation were well considered and properly introduced. They required (as, of course, they still do) suitable conditions and consistent realisation.

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Editors: Beatriz Tomšič Čerkez and Iztok Devetak

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