



#### MACIEJ JAKUBOWSKI

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

#### ABOUT THE PROJECT

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

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## THE INSTITUTIONAL CONDITIONS OF ADAPTING TO FUTURE CHALLENGES IN THE POLISH EDUCATION SYSTEM

Maciej Jakubowski

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#### INTRODUCTION

This study of the Polish school system is related to the "Future Challenges to Education in Central-Eastern European Context" project of the Central European University – Center for Policy Studies.¹ This paper discusses major reforms and changes in the Polish system over the last thirty years, but also focuses on the current institutional position of schools in the system. It discusses the roles of different actors, and what their potential role is in addressing the challenges facing education systems. In this regard, this study refers to the concept paper of the project that defines these challenges (Radó, 2020).

The first section provides an overview of the major systemic changes in primary and secondary education that were introduced between 1990 and 2020. The second section briefly discusses the political agenda in relation to education and the challenges mentioned in the concept paper. The third section discusses evidence related to reforms. The fourth section focuses on the institutional capacity of schools and their ability to adapt to changing circumstances and major challenges. The fifth section provides a broader overview of the governance system in education in Poland. The sixth section focuses on the recent education crisis caused by the pandemic and school closure. The seventh section returns to the challenges defined in the concept paper, providing a brief discussion in light of the factors described in sections five and six. The last section concludes.

## 1. SUMMARY OF EDUCATIONAL REFORMS AND MAJOR SYSTEMIC CHANGES IN EDUCATION SINCE 1990

Since 1990, the Polish education system has been reformed multiple times and a common perspective is that these changes were chaotic and were not governed by any long-term vision or principles. However, a more careful look at how the Polish school system has changed over the last 30 years in Poland reveals that, until recently, major changes have been aimed at the same goals and strengthened the same mechanisms.

Table 1 provides an overview of the major changes implemented in the Polish school system since 1990. One can see three major phases in terms of the reform of the school system in Poland. First, the period between 1989 and 1999 was the introductory phase when the main changes were driven by a political battle between post-Solidarność forces trying to dismantle the remainder of the communist administration and the hierarchical top-down management of schools, and the post-communist political parties that tried to at least partly prevent these changes. The second phase started in 1999 with the implementation of a major school reform and continued with other governments introducing

1 https://cps.ceu.edu/research/educ

only small amendments, and a second wave of reforms in around 2007 and 2014, which can be seen as a continuation and strengthening of the system established in 1999. The third phase, from 2015 until now, is a major reversal of the 1999, 2007, and 2014 reforms. The current system is a combination of the system that was inherited from communist times, especially the 8+4 school structure, with elements remaining from the reforms introduced since 1989: increased school autonomy, national examinations, decentralized school management, a liberalized textbook market, and core curriculum.

Table 1. Overview of major changes in the Polish school system since 1990

Government	Systemic changes			
1989-1991 (first post-Solidarność government)	<ul> <li>Establishment of local governments as a way of dismantling the communist administration; reformers' expectation was that over time local governments would take over school administration, ownership, and management</li> <li>Transfer of ownership and financing of preschool education to local governments, with the assumption that local governments would have sufficient funds from their "own resources" derived from their share of income tax and local taxes (in reality, many local governments closed preschool facilities as they did not have funds)</li> <li>New regulations defined preschool and school education as the task of newly established local governments, but the decision to transfer school ownership was postponed until 1993</li> <li>Tensions between those who wanted to create strong local governments that would also manage schools, and those who wanted to quickly change curricula and re-organize schools through central decisions</li> <li>Establishment of position of Kurators (inspectors) within regional unit of government administration responsible for implementing central education policy and for school administration in their region; Kurators were responsible directly to the ministry and to the regional government administration; also for school inspections and could provide direct orders to school principals</li> <li>Introduction of a new act regulating education up to the tertiary level (Ustawa o oświacie); since then this act has been changed more than 100 times</li> <li>School principals elected by new independent commission including representatives of Kurators, school teacher boards, parents, local governments, and trade unions</li> <li>Right granted to individuals, companies, or social organizations to open a school and receive government funds</li> <li>School financing from Kuratoria for central government schools and through general subvention to local governments, but mostly based on historical costs and reported needs</li> <li>Process of gradual transfer of school ownership to local gove</li></ul>			
1993-1996 (post-communist coalition government)	<ul> <li>New regulation that educational spending of central governments needs to constitute at least 6.6% of the total central budget</li> <li>Further postponement of obligatory transfer of schools to local governments (until 1996)</li> </ul>			

1997-2001 (post-Solidarność government)	<ul> <li>Major structural reform of education in 1999 as part of the extremely ambitious package of health, pension, education and administrative reforms. Administrative reform was closely linked with education reform as it established a new middle-tier of local governments (now responsible for upper secondary education) and changed local government financing and responsibilities</li> <li>Eight-year basic primary education replaced by six-year primary school followed by three years of comprehensive lower secondary education (change from 8 to 9 years of comprehensive education)</li> <li>Upper secondary education shortened by one year (academic track from 4 to 3 years; technical track from 5 to 4; basic vocational track from 4 to 3; introduction of a new type of upper secondary school – "liceum profilowane", which was a mixture of academic and vocational education, but was unsuccessful and discontinued after 2012</li> <li>Introduction of per-student, formula-based financing of education via general subvention; additional funds for students in rural schools (around 40% more) and multiple other adjustments with lesser impact on the total amount</li> <li>Ownership of most schools transferred to local governments; since then most of primary and lower secondary schools have been owned by gmina (the lowest tier) while most upper secondary and vocational schools and additional education infrastructure are owned by powiats (the new middle tier)</li> <li>New professional attainment scheme for teachers with teacher exams and four levels directly linked to salaries; requirement for continuous professional development and for all teachers to obtain a master's diploma</li> <li>Establishment of examinations boards for conducting standardized national examinations at the end of primary, lower- and upper-secondary schools; first national examinations planned for 2002</li> <li>First version of Core Curriculum, which assumed that teaching programs can be independently developed to meet curriculum go</li></ul>
2001-2005 (2nd post communists government)	<ul> <li>Attempts to limit rights of local governments to re-organize education in their area, mostly by not allowing small school closure due to decisions of Kurators (Inspectorates) – a key decision in terms of the ability to shape school network organizations of local governments and, in effect, in shape education budgets at the local level</li> <li>Right to open joint primary and lower secondary schools as one unit – mostly used in rural areas to create schools with 9 grades (6+3). This ran counter to the goals of the 1999 reform, which assumed that lower secondary schools would be created as separate units or together with upper secondary schools (to improve quality and access to teaching infrastructure).</li> <li>Postponement of the introduction of the new standardized "matura" national exam for upper secondary until 2005; since then, this exam has served as the entrance exam to higher education</li> <li>Establishment of the data collection and management system for schools (SIO)</li> </ul>
2006-2007 (PiS coalition government – rightwing/populist government)	<ul> <li>Minister of education from the extreme right party – plans for the introduction of "values"-based teaching; ban on materials discussing sexual minorities, discussions about re-introducing obligatory uniforms in schools, etc.</li> <li>Matura exam abolition – the education ministry decided to allow students with an average score of 30% to pass the exam instead of the law stating that 30% is the required minimum for each subject; postponement of the obligatory exam in mathematics</li> </ul>

2007-2011 (First Platforma Obywatelska government)	<ul> <li>Second wave of significant reforms</li> <li>Introduction of the Core Curriculum (2009), which describes the expected learning outcomes for each stage of education, indicates the main objectives of teaching for subject, defines the requirements of central examinations, and constitutes part of the Polish Qualifications Framework.</li> <li>Core curriculum established from preschool to the end of secondary education; this assumes that the reform that lowers starting school age and makes preschool obligatory will be implemented</li> <li>Core curriculum strengthens teacher autonomy; teachers are encouraged to create their own programs and do not have to use textbooks; however, the majority follow programs prepared by publishers</li> <li>Introduction of a new school evaluation system (2009) that replaced the old inspection system; the new system focuses on school improvement rather than on administrative control and emphasizes evaluation-driven dialogue to improve teaching quality</li> <li>Vocational school curriculum and examination reform – qualifications replaced formal diplomas and can be flexibly collected and confirmed by national vocational examinations (standardized exams are however of low quality due to the large number of qualifications and insufficient resources for preparing for them)</li> <li>Introduction of the new data collection and management system for schools with information collected at the student level and linked to other government registers (only partly successful and currently in its third version – still not fully working)</li> </ul>
2012-2014 (Second Platform Obywatelska government)	<ul> <li>Reform of national examinations (introduced in 2012 for lower secondary and in 2015 for matura upper secondary exam), shifting the focus to skills and problem solving (theoretically, as test questions are quite similar, in the author's opinion at least) and aligned with the core curriculum expected learning outcomes (before, examination standards were set by the central examination board using the curriculum only for general guidance)</li> <li>Early years reform</li> <li>Preschool education obligatory since 2011/2012</li> <li>Gradual lowering of the starting school age to 6 (with full cohort going earlier to school planned for 2015)</li> <li>Additional funding for preschool education to local governments and establishment of cost ceiling for parents</li> <li>Guarantee of preschool places for 3- and 4-year-olds</li> </ul>
2015 (PiS government)	<ul> <li>Reversal of key elements of the early education reform: preschool education no longer obligatory for 5-year-olds and school starts again at the age of 7</li> <li>Reversal of structural changes introduced in 1999</li> <li>Back to 8-year primary school followed by secondary education – the same system as before 1999, and even before 1989</li> <li>As a consequence, now we have only two national examinations –in primary and secondary education</li> <li>Attempts to increase the role of Kurators (Inspectors) with regard to overseeing schools; changes in the committees electing school principals strengthen the role of Kurators, but in the end without real impact</li> <li>Unsuccessful attempts to establish a teacher evaluation system</li> <li>Accreditation of institutions for teacher training (purely bureaucratic but creates a feeling of control by Kuratoria)</li> <li>Reform of vocational education further strengthens the system of qualifications confirmed by external examinations; more financing for in-demand professions</li> </ul>

One could try to summarize these changes by focusing on three major aspects that have been at the heart of discussions about education since 1990. These three aspects (listed below) do not cover all issues that were and still are disputed in relation to education, but in the case of Polish reforms they seem to be crucial and the most recent reversal of reforms shows that indeed these three aspects are focal points of discussions in education.

#### 1.1. Decentralization and autonomy

The education reforms in 1990s were initialized by post-Solidarność politicians who wanted to dismantle the communist administration as quickly as possible. Also, they believed that curricula should be cleansed from old regime ideology, but that doing this might not be sufficient if the old administration kept power in the hierarchically organized school system (Levitas, Herczyński, 2012; Regulski, 2003). One of the very first decisions of the first democratic government was to decentralize administration and to give the responsibility for education to local governments, which replaced old local and regional government administration. Thus, these changes in the education system were not driven by education experts or practitioners, but by politicians.

In fact, many experts and teachers were afraid of decentralization for two reasons. First, they feared that some local governments would not have sufficient funds to finance the provision of educational services in their area. The later collapse of the preschool system in some regions, which was rapidly and fully decentralized (including financing), shows that these reservations were substantiated. Second, very few wanted to defend the old ideology, but people were afraid that giving too many rights to newly elected local governments might push education into being affected by "new" ideologies. The re-introduction of religious teaching to schools, for which the government secured public funds, demonstrated that new political forces were willing to sacrifice the ideological neutrality of schools. At the local level, more extreme attempts to ideologize education occurred.

The decentralization of school ownership and management was introduced very early, but the abovementioned objections slowed down the process. School ownership was transferred gradually, and school financing was partly based on historical costs and later replaced by a standardized per-pupil formula to allocate funds more fairly and with substantial additional amounts for rural governments. Until now, the central government had preserved important rights to regulate teacher salaries and to control the curriculum. The government of the time, despite its declarative support for decentralization in education, tried to limit power of local governments over schools or use school finances to demonstrate the incapability of local governments of mobilizing resources and securing sufficient funds for local schools.

Increasing school and teacher autonomy was a related decision, which partly counterbalanced the transfer of school ownership to local governments. Teachers, step by step, received significant pedagogical autonomy. First, by having the right to select textbooks and to create their own education programs, and later on by introducing the core curriculum, which left the choice of teaching methods and also teaching materials entirely in the hands of teachers.

Thus, it might be said that the decentralization of school ownership and finances, together with increased school and teacher pedagogical autonomy, is a key feature of the Polish reforms, and even the current government, while wiling to increase its power over schools, was not able to pass regulations that would seriously limit the rights of local governments and teachers.

#### 1.2. Professionalism and accountability

Another important feature of the Polish system is the emphasis on teacher's professional autonomy and development, which is balanced by a system of "soft" accountability. These aspects of the education system in Poland are not properly understood in typical discussions which often employ emotional statements about the status of the teaching profession, or the diabolical power of test-based examinations. These discussions also lack an international comparative perspective, which clearly shows that Polish teachers are well-educated, at least formally, as currently nearly 100% of them have a master's degree, and they also have access to professional training, with relatively large proportions of school budgets devoted to this purpose. On the other hand, teacher's salaries are relatively low, and there is indeed negative selection in relation to the profession.

Teachers enjoy the type of professional autonomy that is not common in most developed countries. While they must follow the prescriptions of the core curriculum, these are rather guidelines than direct instructions concerning what should be taught and how. The only real accountability measure is the system of national examinations. However, the results of national examinations are available only at the end of primary and secondary school (before, also at the end of lower secondary school), and they cover only some subjects. Moreover, these results are not available at the classroom or teacher level. Publicly, only school results are reported. While teachers can easily learn about the scores of their students and of students of their colleagues, this is not public information that can be used to punish or motivate teachers.

This system of soft outcome-based accountability paired with increasing teacher autonomy is also a trademark of the Polish education system. One should, however, compare several aspects of the Polish system with other countries to see more clearly that teachers in Poland enjoy significant professional autonomy, and accountability measures are not as strict as is commonly perceived.

#### 1.3. Selection, access to tertiary education, and labor market demand

One of the key results of the reforms introduced in Poland since 1989, especially the reform of 1999, was the increase in access to tertiary education. The figure below documents that Poland experienced one of the largest increases in the proportion of young people enrolled in tertiary education across EU countries and globally. In around 2000, Poland, Slovakia, Czechia, and Hungary all had similar shares of students enrolling in tertiary programs, which numbers were far below the averages for "old-Europe" countries (represented by Euro area average on the figure). Since then, the proportion has increased in all countries, but in Poland growth has been more rapid. Currently, Poland has of the largest share of young people enrolled in tertiary education, comparable to countries such as Finland and Korea.

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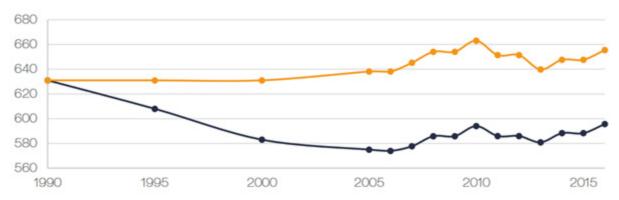
Figure 1. Tertiary educational attainment in Poland and in Europe

Source: Eurostat, indicator SDG\_04\_20, retrieved at 02/01/2020.

One of the clearly stated goals of the 1999 reform was to create opportunities for more students to enter tertiary education. However, this increased access was later criticized as allowing people without sufficient skills to obtain a tertiary diploma. A common lament is that today's students are less able than those decades ago, and that we are observing the inflation of the value of diplomas. While this critique is also present in other countries (that have all experienced an increase in the number of people attaining tertiary diplomas), it is more widespread and relevant in Poland as the number of graduates is relatively larger.

Additional analysis shows that it is indeed true that the average ability level of graduates must be lower if a larger share of the whole population enters tertiary education. Using PISA data and the number of students enrolled in tertiary education, and assuming that from each cohort the most able students go to tertiary education, one can easily calculate that the achievement level of the average student has decreased. Figure 2 demonstrates that restricting enrolment to 10% of the population would result in the higher average achievement level of tertiary students, and that the increase in the tertiary enrolment rates has resulted in lowering average student achievement level.

Figure 2. Simulation of average achievement on the PISA scale of tertiary education students in a scenario where only 10% of the population goes to university (top line) and actual enrolment data (bottom line)



Source: Jakubowski et al., 2017, Figure 32.

Thus, this simple simulation shows that student ability level declined but the explanation for this is different than the popular one. It is common to hear that a lower quality of education, especially in secondary schools, is to blame for a decline in student ability. However, as we know from the PISA studies, but also from studies like PIAAC, TIMSS, and PIRLS, the actual achievement level of students in primary and secondary schools in Poland improved significantly, so the decline in tertiary student ability level is due to increased enrolment rates only.

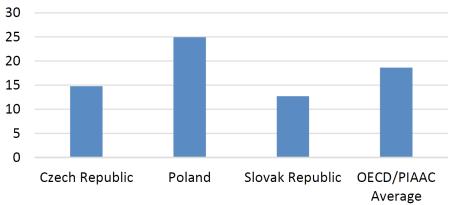
This increase in access to tertiary education was achieved mainly through the 1999 reform that resulted in improved student achievement in lower secondary schools, which resulted in an increase in enrolment in academically-oriented upper secondary schools and in the number of people passing the matura exam, which had the final result of increasing the share of students entering tertiary education. Also, this is the effect of reforms of tertiary education that created multiple possibilities to open new private and public tertiary institutions, and which introduced a system of financing per enrolled student.

Thus, the massive increase in tertiary education enrolment was in part the result of the postponed selection of secondary school students into different tracks, and of the decline in enrolment to vocational schools. Before the 1999 reform, Poland had a much lower share of 15-year-olds enrolled in academic tracks compared to in Hungary, Czechia, or Slovakia. In PISA 2000, participating Polish 15-year-olds were still enrolled in the old system and only 42% of them were in an academic track, compared to 73% in Hungary and 85% in Czechia. However, by 2003, all 15-year-olds in Poland were enrolled in general schools (see Jakubowski, 2015, Figure 6).

Thus, limiting the selection of students and creating a system where more youth enrol in academic schools and to tertiary programs is one of the trademarks of Polish education reforms. The common critique that this has resulted in a lowering of achievement levels of tertiary graduates is true on average, but the similarly common explanation that this is due to the lower quality of secondary education is false. Young poles show better knowledge and skills than the older cohorts, despite common belief that the opposite is true. PIAAC results, presented below, document this, also showing that this difference between generations is larger in Poland than is the situation in Czechia, Slovakia, and Hungary.

Figure 3. Advantage of the youngest cohorts in terms of numeracy skills (PIAAC data, 16-24-year-olds compared to 55-65-year-olds)

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Source: Jakubowski, 2015, Figure 11. Data from OECD 2013 Skills Outlook, Table A3.2N.

## 2. THE EDUCATIONAL POLICY AGENDA OF THE LAST FIVE YEARS, AND EDUCATIONAL CHALLENGES

It is hard to explain the most recent revolution in the Polish education system without understanding its roots: the growing sentiment towards the old school structure and the opposition to the curriculum reform of 2007 and early education reform that continued from 2007 until 2014. The most dramatic change introduced in 2015 was the reversal of the 1999 change of school structure, which is now similar to what was inherited from communist times. This is definitely the most important change in the education system recently, and the one that is not supported with evidence. Initially, it was also not supported by the political party that introduced it, which a decade ago fully supported the 1999 reform as implemented by the right-wing coalition of post-Solidarność and nationalist parties. However, the PiS party recognized the popular sentiment towards the old school structure among its voters and people who organized popular protests against the curriculum reform and early educational reform.

2013 was the turning point when a small family-run NGO organized large protests and collected more than one million signatures supporting a referendum vote against the early education reform, but mainly against starting primary school earlier (at age of 6 instead of 7). To the surprise of many, they added additional points for inclusion in the referendum vote: a return to the old school structure, a reversal of the 2007 curriculum reform, abolishment of compulsory preschool education for 5-year-olds, and limiting local government rights in terms of school closures. While these points were not necessarily related to each other, it showed that there was popular support for ideas that ran counter to the goals of reforms introduced since 1999 in the Polish education system.

PiS, as the opposition party, realized at this moment that they could exploit this popular movement for their political goals. They quickly changed their education program, claiming they wanted to satisfy the "demands of the people", despite the fact that they had supported the 1999 reform and had been the first political party to propose starting school at 6 instead of 7. In fact, the new proposal was in line with their political agenda – mostly based on sentiment and criticism of everything that had happened in Poland since 1989.

Early educational reform was driven by international comparisons showing that Polish kids have fewer opportunities to participate in preschool education, especially in rural areas, and that school starts later than in most European countries. To increase participation in preschool education, following 2007 European Structural Funds were used to open private and public preschool "points", followed by a government guarantee of places for 5-year-olds in preschool education in 2009, and then obligatory preschool education for children at the latter age introduced in 2011. This was the first phase of the major change in school starting age from 7 to 6 in 2012. The latter change was postponed and never fully implemented due to protests and the change of government.

The results of early educational reform show that these attempts were highly successful. Figure 4 shows that in 2000 the preschool participation rate was only around 60%, but by 2016 it was above

90%. While education experts and local governments in the majority supported these changes, some conservative people protested that kids were being "taken from home". Thus, obligatory preschool participation for 5-year-olds was later connected with the right of parents to keep children in preschool until age of 6, and general protests against the reform related to lowering the age at which children start school.

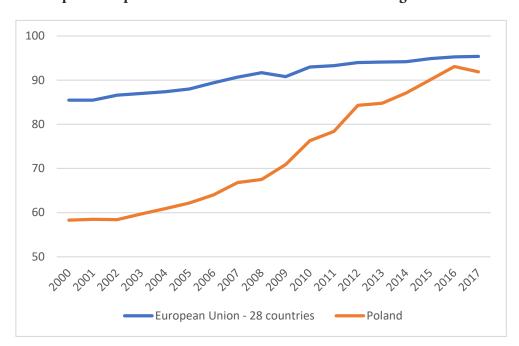


Figure 4. Participation in preschool education - Poland and EU average

Source: Eurostat, % of age group between four years old and the starting age of compulsory education. Indicator SDG\_04\_30 retrieved 8 January 2020.

The reform of the curriculum that started in 2007 had the goal of introducing a core curriculum that would give more autonomy to teachers and also focus on learning outcomes rather than prescriptions of what teachers need to cover every year. Citing one of the authors of the reform (Marciniak, 2015):

"The curriculum has two layers. The basic layer comprises 3-5 general requirements for each subject, which defines the main objective for teaching a given subject at a given education level. For example, for mathematics at lower secondary school the general requirements include mathematical modelling, strategic thinking, and mathematical reasoning and argumentation. This implies that the primary goal of the teaching process as a whole should be oriented towards developing these skills. The second layer consists of detailed requirements, describing the specific knowledge and skills to be mastered by students, e.g., 'a student can solve a system of two linear equations.' However, these particular requirements serve only as a tool in achieving more general aims, as defined by the general requirements."

The new core curriculum had the ambitious goal of changing upper secondary teaching, which was in fact never reformed, with most changes introduced to primary and lower secondary education by then. One change involved introducing interdisciplinary blocks for students who specialize in other

subjects. Thus, if students wanted to focus on natural science or mathematics, history teaching then for them would be combined with civic education, etc. into a social science lesson. This was taken as another assault on secondary education, with opponents claiming that it limited history teaching. In fact, many teachers claimed they did not know how to teach this way, especially because the changes mentioned in the above paragraphs demanded a new way of approaching cross-curricular and general skills in relation to the subject. Thus, the popular criticism, only partly valid, was that history teaching had been "destroyed" was deployed against the reform and later inserted as one of the points in the referendum movement.

The referendum was not allowed following a parliamentary vote, which created political space for exploitation by the PiS party, at this time in opposition. PiS promised to implement all the changes if they won the election, which they did. A similar referendum proposal, again supported by around one million signatures, was drawn up to stop these changes and was again not allowed by parliament, but this time by the PiS majority. Since 2016, the implementation of these changes has been mostly what has occupied ministers of education in the PiS government.

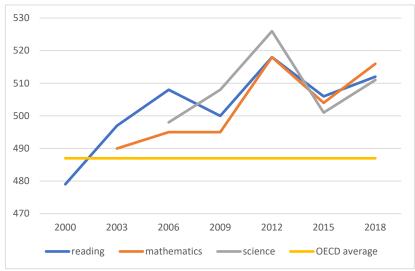
Important disputes, mostly among experts, about vocational and special needs education were conducted without political battles, but also without real solutions. Vocational education was reformed with the introduction of a qualifications system that allows students to collect "bricks" and to validate these at national examinations to create professional credentials that theoretically will help them and employers to meet the demands on the labor market. However, the reform was not properly financed, with elements of the "dual system" not working in the Polish environment due to the lack of interest of employers in committing to financing training from their own resources. Special needs education was only partly reformed, and without adding any additional resources to the system, which is already underfinanced.

## 3. EVIDENCE ABOUT SYSTEM OUTCOMES AND AN EVALUATION OF THE REFORMS

As already noted, the learning outcomes of the Polish education system have elevated student performance to among the best in the European Union, and also globally. Large improvements in terms of average performance, but also in the knowledge and skills demonstrated by the lowest achievers, show how effective the changes that were implemented in the Polish system over the last two decades have been.

Figure 5 shows the results for 15-year-olds in terms of PISA scores between 2000 and 2018. Major improvements can be observed between the results of PISA 2000, in which students under the old structure were assessed, and those of 2003 and 2006, in which students following the new structure demonstrated much better skills. Later results oscillate from the remarkably high scores achieved in 2012, lower scores achieved on the first fully computer-based PISA assessment in 2015, and again an improvement in 2018. The decline in scores in 2015 is difficult to explain, but one possible explanation is that the test was taken on computers and Polish students had already showed in 2009 and 2012 that they score much lower on computer-based PISA tests, suggesting a lack of skill at using computers creatively to solve PISA test items.

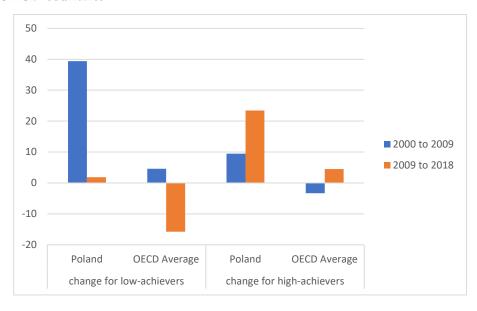
Figure 5. Polish PISA results



Source: author's calculations using OECD PISA data.

Figure 6 shows changes in the performance of Polish students among low-achievers (10<sup>th</sup> percentile of achievement distribution) and high-achievers (90<sup>th</sup> percentile of achievement distribution). Clearly, when compared to the OECD average, the improvements were much larger for low achievers, which can be explained by the fact that the reform postponing selection between vocational and academic tracks in secondary education allowed low-achieving students to benefit from the general curriculum for one more year (see Jakubowski et al., 2016, for a more detailed counterfactual analysis). The improvements among top-achieving students are probably due to other sources, but research does not provide definitive answers. These improvements are probably due to the combined effect of the curriculum reform, increased teacher autonomy, national examinations, and the new school evaluation system introduced in 2009.

Figure 6. Change in PISA scores for low- and high-achievers in Poland and on average across OECD countries



Source: author's calculations using OECD PISA data. Scores of low-achievers are the estimated scores at the 10<sup>th</sup> percentile of achievement distribution, while scores of high-achievers are for students at the 90<sup>th</sup> percentile of achievement distribution.

Not only do PISA results document the improvements in learning outcomes. Similarly, good results are identified in the TIMSS study of mathematics and science for the 4<sup>th</sup> grade, the PIRLS study of reading achievement in the 4<sup>th</sup> grade, and in the PIAAC study where the youngest cohorts show much better skills than the older ones, and are the only ones who perform above the OECD average for adults of similar age.

These improving learning outcomes might be also driven by the increase in the motivation of students and families to obtain the best possible degrees. In fact, despite the large increase in enrolment in tertiary education, the labor market premium for higher education degrees is still substantial in Poland. There is also growing competition between universities with top faculties that provide better labour market prospects for their graduates.

However, while student and family motivation play a role, the system before the reversal of the reforms in 2016 provided multiple possibilities for students to graduate and continue education up to the level of master's degree. National examinations, which objectively decide students' futures, play a major role in shaping student motivation, while the large availability of places in higher education institutions create a major incentive for students to finish upper secondary education with a matura degree and to continue their studies.

Regarding learning culture and teaching approaches, Poland applies a quite traditional system that focuses on the main academic subjects. Also, despite changes in the curricula, academic knowledge is still at the core of teaching, which is criticized by educational innovators, but which, according to research, plays an important role in learning, especially for students with a disadvantaged background (Hirsch, 2016; Willingham, 2010).

When discussing school culture and learning approaches, it is important to emphasize that research shows that students report to having poor-quality relationships in their schools and are generally more often than in other countries to report the lack of connections to their school and peers, and often have negative attitudes towards schooling. This finding is repeatedly confirmed by multiple studies such as PISA, PIRLS, and TIMSS. On the other hand, in these studies Polish students report to having negative attitudes towards schooling similarly to students from other top-performing countries like Korea and Finland. Thus, it is an open question for the Polish school system how to improve student well-being and attitudes without sacrificing the school focus on learning and achievement.

#### 4. SCHOOL-LEVEL ADAPTATION

## 4.1. Teacher autonomy, school governance, and the role of local governments in the decentralized system.

The Polish education system is built on teacher autonomy regarding pedagogical issues and local government autonomy regarding the organization of teaching, while decisions regarding curriculum, examinations, and teacher contracts are in hands of the ministry. The textbook market was liberalized as early as in the 1990s and currently the ministry only plays the role of accepting textbooks, but teachers can choose from all the resources that are available, including those available online or combined from different sources. The reform of 1999 allowed teachers to decide themselves which textbooks and teaching methods to use in their classrooms. The 2008 curriculum reform further increased teacher

autonomy in pedagogical terms, as it emphasized only the main learning goals that should be achieved without specifying how this should be done. The latest curriculum reform in 2016 was a step backwards as it is more prescriptive in terms of how material should be covered within a particular grade, but still teachers enjoy large autonomy in what they teach and how to teach it.

The 1999 reform introduced a new system of professional development for teachers with four professional levels and certifying examinations. This created incentives for improving teaching although it was also criticized as too bureaucratic. In fact, the system was used to increase teacher salaries, as every level is associated with better remuneration. The system also provided incentives for teachers in needed areas – for example, rural school teachers receive a 10% salary bonus. Between 2006 and 2012, salaries at all levels were increased by 50% on average. The largest increase was for the youngest teachers in order to attract better candidates and to limit negative self-selection into the profession. However, since then teacher salaries have remained quite similar, adjusted mainly to inflation.

Typically, local governments do not apply financial incentives to individual teachers or schools. Although regulations assume that relatively large component of a teacher's salary is for "motivational" purposes, local governments usually assume that this is a fixed part of teachers' salaries that is distributed more or less equally (see Klawenek, 2012). However, financial motivation is involved in between-school competition for students who, mostly in large cities, can select different schools. However, this competition is rather limited and related to the survival chances of smaller schools rather than to teachers' salaries and their motivation.

Currently, most teachers are already at the highest professional level and opportunities for further professional development for them are limited. Thus, currently, the system in terms of professional development and salaries is stagnating and requires reform. Current government attempts to introduce a new teacher evaluation scheme and to differentiate salaries have failed due to protests that claimed that changes were politically driven and gave too much power to principals and Kuratoria (the inspectorates which are part of the regional government administration).

In 1999, the governance and finance system were decentralized. The ownership of schools was transferred to local governments and a new per-student formula for distributing resources was introduced. Currently, local governments are partly responsible for financing education, although most of the funds are still transferred from the central budget. In addition, the main expenditure is teacher salaries and those are in large part centrally regulated according to the scheme of professional levels. The increasing burden of teacher salaries and the worsening financial situation of local governments due to government decisions limit local government autonomy in this area.

The weakest part of the governance system in Poland is related to school governance; namely, to the relatively weak position of school principals. The election of school principals is a competitive process with local governments, trade unions, and inspectorates playing major roles in the selection. However, principals receive only a small increase in their salaries compared to regular teachers, while their obligations and responsibilities are much greater. They also have limited say in employment decisions as teachers are protected by a special national law called the Teachers Charter. This law makes the firing of teachers practically impossible, and the decision-making power of principals regarding remuneration or teaching hours is also limited. Thus, in some places, mostly in large cities, there is currently little competition for the position of principal and weak governance at the school level demonstrates the limited coordination of professional development or instructional approaches. The current COVID crisis shows how weak the position of principals is, who in many cases have not been able to coordinate the efforts of teachers regarding online teaching.

The coordination of instruction is a good example of how the autonomy of teachers is intertwined with school governance in the Polish system. Teachers decide autonomously about pedagogy in their classrooms. Theoretically, they should be evaluated by school principals and this evaluation could serve as a basis for their promotion or differences in salaries. However, in most cases evaluations are purely bureaucratic processes and a recent attempt to introduce teacher evaluation standards failed due to trade union protests. External evaluations play a limited role as they are rare and do not affect individual teachers. Various governments have tried to increase teacher cooperation and exchanges of ideas and professional experience by encouraging networking and regular meetings. However, these meetings are rare, teachers report lower levels of cooperation with other teachers than in other countries, and they are very rarely visited during lessons by other teachers, even their colleagues from their own schools or networks (see TALIS results for Poland, Hernik et al., 2014, and further discussion in Section 4.2). Thus, instructional leadership in Poland is typically limited to the joint selection of textbooks, which is also not obligatory, shared training for all teachers in a school once or twice a year, and voluntary exchanges in the teacher's room.

Thus, while the Polish system relies on decentralized decision making and teacher autonomy within classrooms, it also has limited further capacity to deal with additional demands. Financial stress and organizational inflexibilities – mainly related to teachers' contracts – create an environment which is in constant organizational crisis. New challenges, like school digitalization and covid-related demand for online teaching, demonstrate that schools can adapt to these situations and ensure minimum standards, but it would be difficult to find examples of good practices and well-thought-out implementations of innovative teaching or school-wide solutions. Also, schools rarely cooperate with each other and professional development and exchanges are highly individualized (see next point), which further limits the opportunities for organizational learning and innovations.

#### 4.2. The professional capacity of teachers and schools

Professional development in Poland is decentralized, with private and public institutions providing training. Funds for this purpose are guaranteed by law. Typically, school principals organize sessions for all teachers at their school, while individual teachers apply to various courses, mostly related to the professional attainment system, and principals routinely distribute the latter funds among teachers. Attempts to create professional networks of teachers have failed in the sense that while these networks were created because new laws required principals to organize them, in reality they do not support the real professional exchange of experiences and ideas.

Schools are evaluated under the new system that focuses on school improvement, as introduced in 2009 to replace the old system of school inspections. The related reports are publicly available and only schools that have failed in all requirements are obliged to prepare an improvement program. The system for most schools thus has no consequences; however, as it is centrally managed it is still seen as a means of control. Even those who implemented the system believed that it was just a first step to creating a culture of self-evaluation among schools (Mazurkiewicz, Walczak, Jewdokimow, 2014). The new government tried to shut down the new system, claiming it was an EU-funded project that had finished, but as the EU requires the continuation of the project it is still functioning, but without much support from the current ministry.

The external school evaluation system is based on so-called requirements, which are expectations or standards related to important practices and characteristics. Currently, nine requirements are listed, while previously the list was longer (see Mazurkiewicz et al., 2014, for details of the system).

Evaluations are conducted by professional evaluators who have been drawn partly from among former school inspectors and partly from newly enrolled experts. The process is supervised by Kuratoria and reports from evaluations are publicly available. They are jointly discussed with all key stakeholders and should represent a consensus based on the data that is collected and the opinions of evaluators. They should encourage school development, but only the element of taking part in the process of evaluation is obligatory. School self-evaluation, while encouraged, is not mandatory. Similarly, the conclusions of the external school evaluation reports do not oblige schools to implement changes, except for schools that fail key requirements, but this is extremely rare. Initially, schools were graded according to the requirements, but that practice was quickly abandoned and now the report just describes how a school meets requirements. According to the information that is provided on the school evaluation project website, most teachers and principals see external evaluations as a helpful tool for improvement (see www.npseo.org for project documents, examples of evaluation reports, and evaluation tools).

The results of the TALIS teacher survey in Poland demonstrate that the professional cooperation and self-evaluation of schools and teachers is often artificial. For example, while 41% of Polish teachers claimed that they participate in teacher networks (compared to the TALIS average of 37%), in Poland this participation does not lead to joint educational projects or activities, while in other countries it does. This confirms a shared opinion that teacher networks are created in Poland as this is demanded by Kuratoria (and the ministry), but in practice they do not function, besides organizing meetings once or twice a year. Results for school principals are even worse, as only 1 in 3 reported to participating in professional networks compared to the TALIS average of above 50%. Most professional development in Poland takes the form of workshops or conferences, which are in most cases occasional events, lacking continued professional cooperation (see Hernik et al., 2014).

Teachers should be regularly evaluated by school principals, but the incentives for conducting such evaluations are weak. Principals are typically also teachers, often from the same school. Their positions depend on local governments and can change quite often. Thus, they are usually not willing to conduct serious evaluations of their staff or to make attempts to change teachers who do not show enough effort (which change is theoretically possible but requires several well-documented negative evaluations and is usually attacked by trade union lawyers). Thus, principals commonly choose to conduct evaluations without any real attempt at a professional assessment of teaching, and cases when principals use their rights to fire teachers are limited to serious incidences of harassment or crime.

It could be said that Polish teachers are the kings of their classrooms and have a strong preference for keeping their kingdoms to themselves. While in relation to TALIS most teachers provided answers suggesting a high level of professionalism, their responses were distinct in one aspect of evaluation and professional cooperation. Polish teachers very rarely allow others into their classrooms and only 1 in 10 teachers reported that they invite other teachers to observe their lessons and exchange ideas (one could expect that, in reality, this numbers is even lower). This practice, which is seen by many experts as a cornerstone of professional development and teacher professionalism, is rare and unwelcomed by Polish teachers. Classroom visits are required by law, so teachers have to open their classrooms once or twice a year. Otherwise, they keep their teaching to themselves and their students, without opening up to professional discussion with other colleagues.

This limited openness to professional exchanges demonstrates the low capacity of Polish teachers and principals to learn from each other. As a result, it is more difficult for Polish teachers to respond to challenges or to innovate. Professional networks rely on individual teachers who rarely exchange ideas with colleagues in their own schools.

#### 4.3. School leadership and effectiveness

According to international student assessments, the Polish education system performs very well, despite lacking funding. In fact, the relation between student outcomes (above the EU or OECD average) and national expenditure on education (below or close to EU or OECD average) suggests that the Polish system is one of the most cost-efficient education systems (see Figure I.4.3 in OECD, 2019a). This underinvestment, however, means that schools have few additional resources. Local governments focus on making investments and infrastructure and provide limited resources for additional teaching-related needs beyond salaries and statutory funds for professional development. Schools have limited say in allocating additional teaching hours — for example, for struggling students, or providing time for professional cooperation or meetings with parents. With few additional financial or time resources, schools focus on their primary role (obligatory teaching) and rarely go beyond this.

From this perspective, it is difficult to evaluate the institutional capacity and effectiveness of schools. In terms of their main tasks, Polish schools perform very well considering their strong outcomes and limited resources. In terms of additional tasks, students are not provided with additional support or learning opportunities. Psychological counselling is rare, meetings with parents are regular but rarely on an individual basis, and additional courses or extracurricular activities are available only in areas with richer or more willing local governments. One could say that any additional activities beyond regular obligatory classes and teacher/parent meetings are voluntary or occasional.

The recent crisis related to COVID-19 school closures and online teaching clearly demonstrates the low institutional capacity, which is not related to the unwillingness of individual actors or ineffective structures, but mainly to limited resources. Many private schools quickly organized remote learning with school coordinators responsible for solving technical issues, managing schedules, and supporting teachers, students, and parents. In public schools this was not possible, as school principals do not have additional resources to finance such positions or to cover costs of additional hours for teachers thus employed. As a result, public schools struggled for several weeks to organize lessons and organizational and technical issues remained unsolved in many places.

#### 4.4. The outside-school environment and the role of parents

Schools are not open to professional exchanges with other teachers, but they are also closed to cooperation with parents and other external stakeholders. The role of parents, local employers, and NGOs is very limited unless principals or individual teachers are willing to make an extra effort to develop such forms of cooperation. Formally, parents are part of the decision-making process at the school and government level, but their opinions do not have to be considered when final choices are being made and, in practice, parents are often not even consulted in relation to important decisions regarding teaching. Parents have a right to form a school advisory council, but while principals are obliged to consult them about decisions, they do not have to respond to their opinions. Consultations with local representatives, NGOs, and local businesses are rare. The general opinion is that school democratization is still a challenge for Polish schools (Herbst, Herczyński, 2012; Piotrowska-Gromniak, 2013).

#### 5. GOVERNANCE ENVIRONMENT

This section provides a concise description of the governance system in Polish education. The overarching idea is the relation between different levels of governance in a strongly decentralized system like the one that exists in Poland.

#### 5.1. Shared responsibilities

The Polish education system is split between two ministries, with the Ministry of National Education responsible for preschool and school education and the Ministry of Higher Education and Research responsible for tertiary and post-tertiary education. The school system has been fully decentralized since 1999. Local governments own school infrastructure and make payments to teachers, but their salaries are regulated centrally and most funds come from the central budget. The ministry defines the core curriculum and controls national examinations. Trade unions play an important political role, while the role of parents and NGOs is still very limited. Table 1 summarizes how these and other responsibilities are shared between the ministry and its agencies, local governments, and schools.

Table 1. Decentralized governance in the Polish school system

	Central government and its agencies	Local government	School
Regulating minimum and average salaries	х		
Payment of teachers' salaries		X	
Local salary schemes (teacher bonuses, extra hours etc.)		X	
School network	X	X	
School financial plan		X	
School building maintenance		X	
School equipment		X	
Decisions concerning the assignment of professional levels for teachers	X	X	X
School principal selection	X	X	
School evaluation	X		
National examinations	X		
School organization plan (number of classes, general teaching plan)		X	
Textbooks	X		х
Teaching methods			Х
Curriculum	X		

Source: Adapted and extended version of Table 2 from Herbst, Herczyński, 2014.

#### 5.2. Curriculum, national examinations, and accountability

The Ministry of Education is responsible for the curriculum and the process of its creation is not transparent. The latest changes introduced in 2016 were particularly strongly disputed, as the ministry did not want to publish the names of the curriculum authors, despite the pressure of the media and NGOs, and even despite the ruling of the administrative court. The ministry also regulates the textbook market, but the process is limited to checking expert opinions about textbook accuracy, while teachers are free to use any textbooks or other materials. Since the introduction of the new core curriculum in 2007, the national examinations that measure learning outcomes were described in the core curriculum. Before that, national examinations were based on examination standards, which were seen by some as more important for schools than the national curriculum, especially in terms of grades and subjects that were assessed through exams. This has changed, but as the descriptions of learning outcomes are quite general in the core curriculum, examinations are also not well defined and have covered different topics and placed different emphasis on various skills in different years.

Theoretically, national examinations should play a major role in terms of accountability regarding the quality of education. The first examinations were launched in 2002 at the primary and lower secondary level. The so-called competency test at the end of primary school (6<sup>th</sup> grade) served for diagnostic purposes and was abandoned in 2016. In lower secondary schools, examination results are used in selection to upper secondary schools and cover language, mathematics, science, and a foreign language. All exams are based on standardized tests. However, the tests are not balanced across years or subjects so their results are only comparable within one cohort and subject. Since 2005, the new Matura exam has covered obligatory and optional subjects with uniform written and oral examinations across the country. The Matura exam serves as the basis for entry into higher education.

National examinations provide key information about student achievement that can be used to monitor the performance of schools or local governments. The results are publicly available at the school level. However, as exams are not comparable across years and trends are not monitored, it is hard to hold the Ministry accountable for student outcomes. Poland participates in all cycles of the major international assessments, including PISA, PIAAC, PIRLS, and TIMSS. These are currently the main accountability tools at the system level and the impact of these is discussed in the section on international organizations.

National examinations are obligatory in the sense that students need to attempt them to graduate to the next education level. In the past, the exam after primary school was not obligatory and was not used to select students. Currently, all examinations are used for selective purposes, so they are high-stakes events for students. They are also important for teachers who are often evaluated by principals using exam results, but without direct consequences. The exams are standardized and comprise simple choice, short response, multiple choice, open response, and essay questions. The exams were first changed in around 2008 to reflect changes in the core curriculum that emphasized cross-subject skills like problem solving. More recently, examinations were changed to include more open response items, in the assumption that the latter are better at measuring higher-level skills. However, after looking at the results, the correlations between responses to different types of items, and reviewing exam content, one could say that examinations are the most stable element of the education system in Poland.

#### 5.3. The power of Kuratoria

Kuratoria are school inspectorates that are part of the government administration in each region, but usually function separately, closely connected to the ministry. Historically, Kuratoria had major power over schools and were responsible for managing, financing, and inspecting them. Since 1989, consecutive governments have tried to limit their power over schools, most significantly between 2001 and 2005 during the second post-communist coalition, and also the current government, which additionally tried to re-establish Kuratoria as a key decision-maker regarding school networks and the choice of school principals. However, these attempts were only partly successful due to the protests of local governments and their political influence. Also, the reform of the school evaluation system limited the power of Kuratoria, as traditional bureaucratic inspections were replaced by a more transparent system of school evaluations (Mazurkiewicz, Walczak, Jewdokimow, 2014).

#### 5.4. System-level evaluation and research

Several government-dependent agencies are responsible for system development, research, and evaluation. National and regional examination-boards conduct examinations, which are the major source of information about school performance, while, as discussed above, they provide limited insight into how student performance evolves over time. The Educational Research Institute (IBE, Instytut Badań Edukacyjnych) is responsible for educational research and recently also for the Polish qualifications framework. The Centre for Education Development (ORE, Ośrodek Rozwoju Edukacji) develops national programs for teachers and also implements several projects funded from European structural funds. While these institutions have produced hundreds of research reports, their influence over decision-makers is limited. Also, none of them are responsible for conducting evaluations of the whole system. Ultimately, international assessments serve this role as the only source of information about the performance of the system that apply data that can be compared across time and internationally.

#### 5.5. Local governments

One of the major expectations behind the decentralization of education was that local governments would play an active role in defining educational standards and improving teaching quality. However, these expectations were not fulfilled. Most local governments focus on organizational tasks and school infrastructure and their impact in this area is generally seen as positive.

Since 1992, local governments have been responsible for financing preschool education from their own resources. As a result, poorer, mostly rural local governments closed preschool facilities and the availability of preschool education declined dramatically (Jakubowski, Topinska, 2009). A lack of adequate investment in preschool education by local governments demonstrated the fact that simple accountability mechanisms like citizen pressure on elected officials might not work. The benefits of early education are long-term and might require the intervention of the central government to meet the long-term needs of society. As described above, the intervention of the central government was required to re-establish the availability of preschool education across the whole country.

The position of local governments as units responsible for quality of educational services in their area is not that clear. On one hand, local governments organize networks of schools, select

principals (or play a major role in the selection process), and can invest their own funds into their schools. However, the power of the ministry regarding curricula and standards, together with teacher and school autonomy, leave very little room for local governments to shape teaching quality in their school systems.

In addition, data are not readily available for the evaluation of school performance and comparing the effectiveness of local governments. Several attempts to provide better information to citizens about the performance of their local governments started discussions among experts, but did not have a large impact on citizens, who more often judge the quality of education by measuring their relations with teachers or by the availability of infrastructure and additional care, but not according to the learning outcomes of students. Long-term strategic planning for education at the local government level is still very rare (Levitas, 2012). The incomparable results of national examinations do not help with establishing the basic tools of accountability for evaluating the efforts of local schools.

#### 5.6. The professional accountability of schools and teachers

As already discussed, the results of national examinations are the only means of evaluating school performance. However, these results are not available to the public at the classroom or teacher level. Also, they are not easy to compare across time or subjects. In fact, for several years already they have been published on a percentile scale, providing rankings of students and schools. However, this does not say much about the objective performance of a school over time and the results are available at the whole-school level only. Individual teachers learn the results of their students and these results are available to principals, but this information is not made public. As discussed above, teachers are also rarely evaluated by principals, and observations by and consultations with other teachers are also rare. Thus, individual teachers are rarely evaluated, externally, internally, or by colleagues.

The new school evaluation system that was introduced in 2009 provides interesting data that could be used to evaluate school work. For the first time, the evaluation system required asking students' opinions about, for example, teaching methods, and relations with teachers. These results are available in the evaluation reports that are public. However, they are rarely used, as the reports are extensive and rather inaccessible to untrained parents or other stakeholders.

Exam results and evaluation results are published at the school level, so theoretically school principals should play a key role in the accountability system. As discussed above, however, the position of school principals is weak (see also Herczyński, Sobotka, 2014; Mazurkiewicz, 2011). Their main way of influencing the quality of teaching is through decisions about the employment of new teachers as they cannot dismiss teachers who are employed on regular contracts. Also, principals can assign special responsibilities to some teachers (e.g. the post of head of mathematics education) and can provide special financial bonuses to the best teachers. However, the discretionary part of the salary they can distribute among teachers is rather small (Herbst, 2012). Also, as discussed above, in most cases principals are themselves teachers who are elected to their position for a limited period only. When they return to regular teaching, they must live with their colleagues. While they are slightly better paid, the difference is not reflected in the additional burdens of the position. Thus, their incentive in relation to making unpopular decisions is limited.

#### 5.7. Governance and the reforms – conclusions

The reforms were partly successful thanks to the increased involvement of actors at different governance levels. In most cases, local governments managed educational facilities more efficiently, while teachers used the freedom of increased autonomy to improve learning outcomes. However, increased involvement comes at the cost of increased complexity, overlapping responsibilities, and constant political tension. It often might be unclear to citizens who should take responsibility for school closures, teacher salaries, a lack of preschool facilities, or unsatisfactory student achievement. This ambiguity is often used by political actors to blame others or disinform citizens.

Additional institutions are needed to manage such a complex system. In 1993, a committee was established between the central government and the local governments to discuss current legislation. Committee representatives meet regularly with key ministries to discuss ongoing issues, with one of the subcommittees meeting regularly at the Ministry of Education. The committee discusses every piece of legislation. Its opinion is presented to parliament, although it is not required to find a consensus before proceeding further.

The role of parents, employers, and NGOs is still very limited. While consulted in the decision process, they usually have little influence over the outcomes. Attempts to formalize their role (e.g. parents' council in schools) did not succeed, and the latter still play mainly an advisory role. Similarly, students do not influence school decisions. This lack of representation of key stakeholders at the local and national level is often criticized and results in harmful tension.

## 6. THE CASE OF SHIFTING TO ONLINE TEACHING AND LEARNING DUE TO SCHOOL CLOSURES

The COVID-19 pandemic has revealed that the competence of teachers and students regarding the use of digital tools in education is lacking. On 11 March, with about 20 confirmed cases of coronavirus, the Polish Government decided to close all schools and universities (previously some universities were closed due to the decision of rectors, not the government). Schools needed to adapt rapidly to the new situation, and in most cases first experiences with remote teaching demonstrated mounting technical, but also organizational and pedagogical issues.

First addressed were technical issues. Access to a computer and internet connection in Poland is better than in other countries. However, in teaching during a pandemic, access is limited due to the need to share equipment. The problem is also due to the inadequate digital skills of teachers, students, and parents. Numerous surveys, although based on non-representative samples, suggest that the opinions of teachers and school principals about their preparedness for teaching using digital tools were strongly revised.

Unequal access to infrastructure, technical barriers, and the need to share equipment increased the education gap. The Polish government allocated 186 million PLN (about 42 million euros) to purchase laptops and tablets. Students whose families met the required criteria typically received a free laptop or tablet for use while learning. It was also made possible to buy the necessary software, hardware insurance, mobile internet access, or other accessories needed for remote learning. The related

finances were transferred together with the guidelines to local government units all over Poland. The Government also encouraged mobile operators to provide teachers and students with special offers for internet connections. Most operators did provide very favourable packages, and the "Internet for education" campaign was launched. This alone could not solve, however, issues related to skills, but also problems related to relatively congested housing conditions, which in practical terms mean that many students lack separate study rooms.

While these technical issues were reported by all surveys and opinion polls conducted during the pandemic, it is the quality of instruction, poor organization, and lack of necessary skills that are the most difficult items to tackle in a relatively short period of time. The Government launched several programs for supporting students and teachers, including the provision and development of online learning tools and TV-based lessons. The online materials are widely used by students and teachers, and they are also criticized as being non-interactive and not updated in relation to all subjects. Two weeks after the schools were closed down, the state television, in cooperation with the Ministry of Education, started to broadcast lessons on a few television channels. The TV lessons were of rather low quality, and prepared too quickly with mistakes that quickly went viral. On 1 April, the day's broadcast was watched by only about 82 thousand viewers aged 4-15 years, which is only 1.8% of people of that age.

In practice, the government's actions have had limited impact on what was happening in schools. In the majority of schools, the lack of leadership of principals and unpreparedness for the technological shift were obvious. Teachers chaotically used different online platforms and did not coordinate teaching hours or homework with each other. In Warsaw, the lowest estimate is that around 15% of students did not participate in most lessons since March. The results of national Matura examinations were worse than a year before; however, as explained above, they are not comparable across years so it is unclear if the reason is poor teaching and learning during the coronavirus crisis or differences in the difficulty of the exam.

Since the beginning of the period of school closures due to the pandemic, the government has not conducted any research to evaluate the situation, or at least the results were not made public. A private company that provides electronic journal services (Librus) published its own research results, which are not based on a representative sample. Half of the parents, according to this study, reported that remote learning was applied to all subjects, and 28% of parents said the same for most subjects. However, 13% reported that remote lessons were being held for less than half of all subjects, and 4% believed that it was not being done at all. More than half of parents also admitted that video-conferencing lessons were not being conducted in any subject, and as many as 76% of parents considered that their children are overloaded with material during the period of remote learning. The latter results were confirmed by several other online surveys, in which the majority of students and parents claimed that remote teaching was based mostly on the homework-like independent work of students, without much support from teachers.

The government did not prepare a new approach to schooling during the summer of 2020. The decision was made that principals would have to decide whether to keep their schools open or closed, or to enter a blended learning mode. Principals feel unprepared, and without additional financial resources they cannot fund new infrastructure to increase health-related security. The online government platform for learning was not launched, despite some promises. Local governments, mostly in large cities like the capital Warsaw, agreed with providers like Microsoft to provide one technological solution to all teachers and schools, which will probably make remote teaching easier from a technical perspective.

However, issues regarding the use of proper online teaching methods and motivating students to participate in remote lessons went unaddressed.

Teaching during the pandemic highlighted the strengths and weaknesses of the Polish school system, especially the complex relation between the government, local governments, and semi-autonomous schools and teachers. Clearly, the role of the government in supporting teaching and learning was limited. This should not be a surprise as the ministry plays a major role in shaping curricula and key regulations, but for the last twenty years has had little to say about professional development and the practiculaties of school work. In such an institutional setting, it was reasonable to leave the key decisions to local governments, school principals, and teachers. In fact, schools did not have to wait to organize online learning and key decisions were made rapidly. However, at the local level resources and expertise are rather limited, perhaps except for in the largest cities. The opportunities opened up by autonomy and flexibility can be fully used only if resources are available and can be mobilized to meet local needs.

This crisis demonstrated how the weak position of school principals and the lack of instructional leadership in Polish schools lessens their capacity to adapt. School principals do not have additional resources for organizing online learning. For example, they do not have resources for employing online teaching and learning coordinators, which is necessary, as other teachers are contracted only for teaching subjects. Many schools rely on the voluntary work of teachers, but this is not a long-term solution, and in most schools it does not work well. School principals can afford to give only limited support in terms of professional development, so it was impossible for them to quickly organize the necessary support and tutoring for teachers.

Finally, teachers in Poland are independent islands, and they are used to organizing teaching in their classrooms without any external involvement. One could say that this lack of openness and limited cooperation between teachers has been a major issue in the Polish system that should be addressed to further improve teaching quality and enhance teacher professionalism. However, in the case of the COVID-19 crisis, this lack of cooperation between teachers and lack of instructional leadership has had a highly negative impact on teaching and learning. Teachers were left alone to solve technological challenges and develop new materials for online teaching. They were also left alone to re-think their pedagogical approaches. Most teachers remained using traditional teaching materials and methods and tried to adapt them to online teaching. This was not their first choice, but a necessity as they could not rely on resources and cooperation from other teachers. It was not possible to jointly re-think teaching, develop online materials, and modify pedagogy. Teachers are left alone in the crisis, and this is a result of institutional arrangements and the lack of cooperation in Polish schools.

Finally, the COVID-19 crisis has also demonstrated the limited capacity of the Polish education system to make decisions driven by data. The government did not implement a survey to monitor the situation. It preferred to remain silent and leave most decisions to the local level. Capacity for research at the local level is obviously limited. Thus, after one year, we still do not have representative data about student participation in online lessons, the allocation of their time concerning learning at home, and we have no estimates of educational losses caused by the pandemic. Without such data, it seems to be easier to pretend that online teaching is effective, to ignore issues related to the lack of social relations and difficulties at home, and to keep on with business as usual.

#### 7. DEALING WITH EXTERNAL CHALLENGES TO THE EDUCATION SYSTEM

In the reference paper for this report, the analytical framework lists eight disruptive future changes to which education systems have to adapt (Radó, 2020): (1) technological changes, (2) the transformation of the structure of job supply and the workplace, (3) demographic changes and various forms of migration, (4) the tide of populist politics and the increasing number of new types of autocratic regimes, (5) the tenacious survival of old societal forms of inequality and the emergence of new ones, (6) changing gender roles, (7) climate change and (8) globalization.

For Poland, it is hard to point to direct solutions or responses in the education system that address these challenges. Recent changes in curricula have been implemented in the shadow of political battles with trade unions and the opposition. The new curricula were changed without any open discussions and the ministry refused to reveal the authors of new subject content. This situation was questioned by the NGO "*Przestrzeń dla Edukacji*", and after a two-year battle the administrative court forced the Ministry to publish the list of curriculum authors in 2018. This shows how the inclusion of the above-described challenges was not driven by public discourse, but rather by the interests or worldviews of the individual curriculum authors.

In some cases, issues like migration and climate change have been directly addressed in textbooks, which caused protests in relation to clearly ideological statements. However, these textbooks were prepared by publishers and acknowledged by the Ministry without any discussion about their content. Schools and teachers are free to select textbooks, but without public discussion about their content. Thus, for example, textbooks mentioned that a growing number of immigrants increase tensions in the European Union, or praised the benefits of government programs that support families. In this way, some controversial statements and ideological views that are related to the above-mentioned challenges have been incorporated into textbooks, but without any open discussions. A child might be exposed to these issues just because a teacher selects a particular textbook, not because the curriculum defines the latter as challenges that should be discussed based on a common consensus surrounding these topics.

Lack of open discussion about curricula and textbooks is symptomatic. It shows that in a politically divided country like Poland, it is difficult to address such challenges openly and in a democratic manner. The Ministry of Education is solely responsible for the development of curricula, but is obliged only to collect feedback through the usual procedure of passing new laws, but without any obligation to address comments or to seek consensus concerning issues that are disputable. Curricula, on the other hand, provide only general descriptions of issues without going into detail. Schools and teachers can also use any educational materials they find useful, and which are broadly related to the curriculum. For example, schools received a book that questioned the classical theory of evolution, which was criticized by scientists, but which was distributed to numerous schools in Poland with a request to discuss these issues in an open manner with students. In this way, questionable pseudo-scientific knowledge can be incorporated into teaching, although such cases are rare and often criticized in the media.

Probably the only challenge that is addressed openly is the one related to technological change. Recently, a skills strategy was accepted by the Polish government as a main document showing how changes in the content of curricula at all levels of education should evolve. This document was based on a review by an OECD team published as "Skills Strategy for Poland" (OECD, 2019b). Although the former document makes only general reference to globalization, digitalization, and demographic change, it contains specific recommendations about general skills development. The government document is called "Zintegrowana Strategia Umiejętności 2030" (Integrated Skills Strategy 2030) and makes references only to technological change and digital skills (ZSU, 2020). It discusses the growing demand for digital skills and emphasizes other skills typically mentioned as so-called twenty-first century skills: social skills, leadership, entrepreneurship, citizenship, life-long learning, etc. The document lists general definitions of these skills and emphasizes that they are partly reflected in current curricula, but that their role in teaching should increase. However, no specific forms of implementation are listed. The document was passed in the typical way for government documents – involving collecting opinions from other ministries and social partners (NGOs, trade unions, business organizations, etc.) – but without any open discussion about its content, even at the government level.

One might expect that ZSU 2030 should serve as a basis for the revision of curricula and further discussion about global challenges and how to address them in schools. At this moment, it is unclear whether such discussions will follow. The current ministry focuses on ideology-driven discussions about "defending family values" and fighting any reflections of "leftist ideology" in schools or universities. The ministry of digitalization was incorporated into Prime Minister's chancellery and pushes for changes related to the teaching of digital skills. The current curricula already incorporate new ways of teaching computer programming in schools, while they also emphasize analytical and social skills, innovation, and entrepreneurship as overarching ideas incorporated into different subjects. Currently, it is unclear what exact changes might be implemented in new curricula and when. Plans for curriculum reform have not yet been revealed.

#### CONCLUSIONS

The Polish education system has been heavily reformed since the 1990s. The most significant reforms took place around 1999, when the system structure was changed, new curricula giving more autonomy to teachers and schools were implemented, a financing formula was introduced, and school ownership was finally passed over to all local governments. These changes were strengthened later on with major changes that were introduced following 2007: these include the core curriculum, school evaluation system, and increased support for preschool education. However, many of these changes have been reversed since 2016, and the system is currently stagnating, with attention focused on ideological discussions about curricula content.

Considering the eight challenges discussed in the concept paper behind this project (Radó, 2020), only issues related to technological change are addressed in government proposals. For example, the most recent strategic document related to skills development (ZSU, 2020) discusses mainly challenges related to developing digital skills, with only general statements about areas that require further

development (e.g., socio-emotional skills, innovation, challenges in the labor market, etc.). The current COVID-19-related teaching crisis shows that the government and schools are relatively well-equipped to meet technological challenges, but in terms of teaching content and, for example, switching to online materials and learning, teachers and students are far from ready, and adapting to new circumstances has been overwhelming for most educational institutions.

Schools and teachers in Poland enjoy significant autonomy, which has partly been limited by recent changes in curricula that became more prescriptive, but still leaves major decisions regarding content and methods to teachers. On the other hand, the institutional capacity of schools to adapt to new challenges is restricted by their lack of resources and deficient leadership. School principals have only limited financial resources at their disposal. Instructional leadership in schools does not exist, with individual teachers being almost fully responsible for what happens in their classrooms. In this context, it is not surprising that schools cannot quickly adapt to new challenges, like switching to online teaching, while addressing more important and long-term challenges is beyond their scope. Individual teachers, on the other hand, might change teaching content and their methods to accommodate new challenges, but these efforts are not coordinated. This lack of capacity and leadership at the school level is a major obstacle to the further development of Polish schools, and in relation to adapting to meet future challenges.

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