POLAND AS A GLOBAL DEVELOPMENT PARTNER

EDUCATION REFORM

Zbigniew Marciniak
University of Warsaw
Lessons of experience from the Polish transition
Zbigniew Marciniak
University of Warsaw

REVIEWING POLISH EDUCATION REFORM IN THE LATE 1990s – POSSIBLE LESSONS TO BE LEARNED
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This note was prepared under the third component of the engagement, and presents a personal perspective of the reform practitioners who have had intimate knowledge and were directly involved in Poland reforms during the past 25 years. This and other notes under the series are primarily addressed to policy makers in other countries in order to inspire them and provide knowledge of and an entry point to ask more questions on Poland’s experience, while designing reforms in their own countries. It is hoped that they will also stimulate a deeper reflection on past reforms in Poland and facilitate a national policy debate on future challenges. The notes are expected to facilitate a larger dialogue and serve as an example of Poland’s readiness for a stronger engagement on the global development agenda.

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Introduction

The primary aim of this note is to reflect on the changes which have taken place in the Polish education system since the 1990s. The note is motivated by the hope that Poland’s experiences can serve at least two useful purposes. On the one hand it can encourage decision makers in other countries to take a similar approach. On the other hand it can serve as a warning sign in the areas where the decisions taken did not have as positive impact as expected. With the benefit of hindsight, we are now in a much better position to see which decisions were lacking and which were made late; as time progressed, the Polish authorities tried hard to make amends.
Rationale and objectives behind education reform in Poland

The starting point is, of course, the transformation of the Polish political system from communism to democracy, which began in 1989. The primary goals were to build a democratic system and effect transition from central planning to a free-market economy. The implementation of these revolutionary reforms in all spheres of public life quickly began to reveal inconsistencies with the education framework inherited from the previous system. This contrast became ever more obvious as political reforms fuelled society’s growing aspirations.

The following two drawbacks of the old system were the most visible, and thus became the strongest arguments for reform:

- Very low rate of participation in higher education. The percentage of the Polish population with higher education had remained at 7% for decades. It was immediately clear that a quite different qualifications structure would be needed to build a modern market economy based on knowledge and innovation.

- Very poor literacy among basic vocational school graduates. Regression of the skills gained in elementary schools was a fairly common phenomenon observed in this group. In fact, these pupils already began to show symptoms in the last grade of elementary school. Here, teachers’ attention was focused on preparing more academic-minded students for a secondary school entrance exams, whereas admission to basic vocational schools required a minimum of effort.

It was apparent that neither basic vocational school students nor their teachers believed that much could be achieved as far as general skills were concerned; emphasis was instead placed on basic professional skills. This contrasted sharply with the soft competences increasingly required by the labor market of the free economy. In the early 1990s, the alien concept of officially recognized unemployment, and hence the potential danger of job losses, was a daunting prospect. The public were becoming increasingly aware that general skills are of key importance when faced with the need to change job or even profession.

In addition, the school system itself was showing the full range of deficiencies typical of a centrally planned economy. As a result, in around 1990 the following measures were defined and became the cornerstones of education reform:

- decentralizing the management of general and vocational education by transferring responsibility for the operation of schools to local government authorities,
- hiring of school principals through a competitive recruitment process,
- replacing the doctrine of education through “providing information to pupils” with the doctrine of education leading to “activation of pupils” by means of programmatic pluralism,
• creating a free teaching program and textbook market, with an “acceptance for school use” ministerial procedure,
• eliminating the state monopoly on the establishment and operation of schools,
• increasing the variety of institutions and forms of adult education.

Implementing the legal framework for the reform

The above reforms were introduced with the passage of the General and Vocational Education System Act of September 7, 1991. Although important, these reforms were only the first step towards modernizing the Polish education system. Further reform was necessary to resolve the two basic problems mentioned earlier.

These deeper changes required more preparation time, and were only enacted with the passage of the Act of January 8, 1999, under which:

• a six-year elementary school replaced the previous eight-year elementary school,
• a new three-year lower secondary school was introduced, thus extending the obligatory period of general education from 8 to 9 years,

On graduation from the above schools, pupils have the choice of four types of school:

• a three-year general upper secondary school, replacing the previous four-year upper high school (liceum),
• a three-year profiled upper secondary school (liceum profilowane),
• a four-year vocational upper secondary school, replacing the previous five-year vocational upper secondary school (technikum),
• a two-year basic vocational school, replacing the previous three-year basic vocational school.

The first three types of school lead to the upper secondary school graduation exam (matura), which is the prerequisite for admission to a higher education institution. Basic vocational school graduates have the option to continue their education at upper secondary schools for adults, to gain the same opportunities for further education as other graduates. This structural reform comprised two primary elements. The first focused on strengthening the foundation of universal general education. It was clear that basic vocational schools, with intake constituting around half of the cohort, were failing to offer an effective extension of the general education provided by elementary schools. The main reason was that the primary goal of these schools was to prepare graduates for specific professions, hence general skills remained of secondary importance, with much less emphasis. At the same time, these schools on average admitted the less gifted half of the cohort, hence the general education segment would
have to be expanded significantly in order to achieve a substantial increase in their general skills. However, this could only happen at the expense of strictly vocational classes, which would contradict the primary goal of these schools.

A decision was therefore made to extend the common general education period from 8 to 9 years through introducing a new type of school: a 3-year lower secondary school, which would primarily be tasked with advancing the general knowledge and skills of the entire cohort.

The second reform was the idea of creating a new, profiled type of upper secondary school in addition to the two existing types: liceum, the general upper secondary school, which gives a broad foundation of general education in preparation for higher education; and the technikum, a vocational school offering professional skills at technician level and providing enough general knowledge to take the matura exam, the prerequisite for admission to higher education. The new type of school sits halfway between these two types: it provides broader general knowledge than technikum but still offers courses preparing graduates for a range of jobs.

Moreover, an external assessment system was introduced to ensure comparability of qualifications, as well as enabling pupils’ academic achievements to be ascertained and the quality of school education to be evaluated.

Assessments are carried out at three points in time:

- at the end of elementary school, as an aid in identifying the strong and weak sides of a lower secondary school candidate;
- at the end of lower secondary school, to provide help to students before deciding on the right type of school to apply to next;
- the matura exam at the end of the upper secondary school, as an indication of readiness for higher education. This exam had previously existed, but its role was changed. Since the 1920s it had been a traditional examination marking the completion of high school education. The matura was traditionally followed by higher education institution entrance examinations. After the reform, the matura took over the higher education admissions function. By law, higher education institutions may no longer hold entrance examinations on topics covered by the matura exam.

The first two exams listed above are used to create an interesting quality parameter for each lower secondary school – educational added value (EWD in Polish). In the roughest terms, this compares the results of students entering a school with results for the same students on graduation, therefore taking into account the socio-economic background of the community in which the school operates. This is done via a sound statistical procedure, with consideration to a range of external factors. The raw data for this parameter is publicly available online at http://gimnazjum.ewd.edu.pl.

The new law also enabled entities other than the state to establish and create schools. These include social organizations and associations, as well as religious groups. The number of such schools is marginal in comparison to the number of state schools, accounting for less than 2% of all elementary school graduates; for lower and upper secondary schools the corresponding figures are 4% and 14% respectively. These
schools are also typically small. However, their number has increased slightly in recent years. New private schools are typically created when a parent organization decides to save a small state school which for economic reasons a local authority has selected for closure. As a private enterprise, the school does not have to follow state rules for the employment of teachers. Those rules are described in the act “Teachers' Charter”, which lists a long list of professional privileges, designed in the past to gain the support of the largest trade union. Those rules apply to all state schools and have substantial financial consequences. In a private school they are not obligatory, what makes such a school less expensive and hence it can survive even with a relatively small number of pupils.

**Implementation of the structural reform**

One of the key tenets of education reform in Poland was to decentralize the management of schools. Poland’s administrative structure comprises 16 voivodeships (provinces), which are further subdivided into powiats (counties, of which there are 379); powiats are further subdivided into gminas (municipalities, numbering 2478). Each administrative level (voivodeship-powiat-gmina) has a local government authority. Before the reform, Poland had a central school administration. After the reform, elementary and lower secondary schools are now managed by gminas, while upper secondary schools are managed by powiats. Each year these local government authorities receive a so-called educational subvention – a budget from the state to provide education to pupils in their corresponding administrative regions.

School management soon became an important tool for building a spirit of self-government in the young democracy. For obvious reasons, schools have many stakeholders in the local community, and are closely observed by the local population on a daily basis. Thus new democratic self-government structures usually pay special attention to schools. The results can often be seen clearly – many communities, even the poorest, invest substantial additional money in their schools, bringing them to the top of local spending priorities.

Local authorities pay a lot of attention to the quality achieved by their schools, and are the primary users of the EWD data mentioned earlier. Some local authorities develop original ideas for achieving improvements in school quality: encouraging teachers to implement educational innovations, organizing additional forms for school activities, etc.

Local authorities are only now passing an important, but difficult, test. Due to the decreasing student population, the school system requires rationalization: some schools have to be closed, others have to be restructured. This is a true test of the authentic local authority. In most places the process runs smoothly. However, in some communities the prospect of closing a local school becomes a social issue.

Change to the system required the creation of (new) lower secondary schools.

There were around 14,000 elementary schools in Poland before the reform, some
of which were quite small, especially in rural communities. It was decided to close some of these schools down and move the students to other nearby schools, establishing new lower secondary schools in the buildings which had been vacated.

As the lower secondary schools were supposed to provide the next stage of education, it was decided that they should be equipped with substantial resources. Hence bigger buildings were selected, with enough classrooms for subject laboratories, sport fields and sports halls. Altogether around 7,000 lower secondary schools were created, and these were opened on September 1, 1999.

In the long run, the reform did not require a substantial increase in education funding, as this is essentially proportional to the number of students in the system – the reform did not change the overall number of years each student spends at school.

A number of teachers had to change jobs. Most teachers currently employed by lower secondary schools previously worked at elementary schools – because the latter now covered only 6 grades and not 8 as before, the number of teachers required had decreased. The general count showed that the number of teachers needed by the reformed system would be approximately the same as before, including the structure of their specialties.

It could be expected that teachers would be reluctant to change schools, something which could have presented a serious issue as teachers’ trade unions in Poland are large and thus strong. However, there was an important psychological factor that helped solve the problem. In moving to lower secondary schools, teachers quite often perceived this change as an offer to shift to a more prestigious type of school: lower secondary schools were after all secondary schools.

This positive attitude brought further benefits. In the initial period of lower secondary schools, many problems had to be resolved at school level. The enthusiasm of teachers working at a higher educational level than before provided key help in solving these issues.

What did this new school bring to students?

First of all, it gave them the chance of a “new beginning”. In the later grades of the previous eight-year elementary school, most students had an established reputation, often not a favorable one. Even though many underwent a change of interests and motivations, which is normal in adolescence, those labelled “just average” or “not gifted” usually retained this status until the last grade. It was rare for a student’s grade average to change significantly in the last grades of school.

Moving to a new school enabled a change. After graduating from elementary school, many students show that they are able of achieving much more than their elementary school grades would suggest.

There was another factor which encouraged many of these metamorphoses: the central exam at the end of sixth grade of elementary school. The main idea of this exam is to measure a student’s ability to employ logical thinking and basic knowledge, rather
than memorized data or algorithms for solving standard problems. This had an unexpected effect. Students labelled as poor by their elementary schools, which concentrated on drilling pupils to solve very typical problems, were often able to achieve quite good results on the state exam. This certainly gave them a strong push in the right direction – they discovered that a different objective measure could give them a much better placement than they had ever expected.

The lower secondary school curriculum was based on the same list of subjects as in grades 7 and 8 of the previous elementary school: Polish, a foreign language, history, geography, biology, chemistry, physics, math, art, and physical education. The idea was to provide students with basic knowledge and skills in each of these subjects, which are essential in everyday life. More advanced, academic knowledge would then follow in upper secondary school.

The fundamental aim of bringing teaching objectives closer to real life experiences was paired with another general aim of the Polish educational reform: to replace the doctrine of education through “providing information to pupils” with the doctrine of education leading to “activation of pupils”. Both aims can only be achieved when the students and their abilities are placed at the center of attention and the actual educational program is carefully adapted to their needs.

This led the Polish education authorities to make school programs flexible and to transfer responsibility for study program choices to schools. Programs could be freely created by anyone; the only condition was that they should stay in line with the state curriculum – this was verified by experts from the ministry before the program was accepted for school use. However, the curriculum was formulated in very general terms, allowing a diversity of programs to emerge. Consequently, it was decided to create a free textbook market, so that the schools could receive a variety of materials supporting the independently chosen program for their students.

Soon enough the textbook market flourished; in the peak period there were around 900 textbook publishers on the market, although now this number has dropped to about 30. Through intensive marketing, teachers received as many as several dozen different textbooks per subject per grade. Together with the textbook, other materials like problem sets and exercise books were provided.

Those implementing the reform expected that schools would make full use of the potential for program autonomy. They expected that teachers would create their own original programs to best suit their students’ needs. This did not happen. An investigation conducted in 2004 by the education administration revealed that only around 7% of teachers followed this path. The most active teachers were quickly identified by textbook publishers and became authors of textbooks. Other teachers looked for ready-to-use examples. Textbook publishers rapidly filled this gap and, as part of auxiliary marketing, offer out-of-the-box programs, including the teaching time distribution for every day.

Even though each textbook has to be accepted for school use by the Ministry of National Education before being used, experts believe that the average quality of textbooks has become very diversified. The most popular textbooks are not
necessarily the best – these usually concentrate on basic algorithmic skills, hence are “easy” for weaker students.

However, the overall effect of program autonomy is that schools no longer take programs for granted – they have to deliberate on them each year, especially since the final exams check learning outcomes and allow the local government to compare schools. The EWD system referred to earlier was designed for this purpose, to avoid raw results comparisons lacking the socio-economical background effect.

Program autonomy had one more, rather unexpected side effect. Many teachers felt obliged to cram their lower secondary school students with almost all topics designed for both lower and upper secondary school level. For them, it was difficult to leave more advanced topics to the next teacher at upper secondary school. It should be explained at this point that lower secondary school teachers had no difficulty understanding the merits of the upper secondary school curriculum as the great majority of teachers working at lower secondary schools hold a master’s degree in teaching, mathematics, physics, etc.

Although fairly beneficial for the most talented students, this approach was disastrous for less academically minded individuals – there was simply not enough time. It resulted in significant disarray identified by upper secondary school teachers: the average candidate would have extensive gaps in his/her knowledge at random places. This would be a true disaster if not for the central final exam, which imposes uniform requirements on all schools and forces all teachers to return to the mainstream for the sake of their students’ exam success.

The problem was partly created by the vagueness of the national curriculum, which generally indicates the fairly broad areas which should be covered. An ambitious teacher can easily interpret the curriculum at his/her discretion.

On the other hand, the Central Examination Commission, i.e., the institution administering central exams, defined examination standards specified by the types of problems that might appear on an exam. This encouraged less ambitious teachers to spend the entire time merely practicing these examples, without true reflection on the objectives of education at lower secondary school level.

From today’s perspective it is clear that the curriculum issue should have been resolved in parallel with the systemic change in education. However, this only happened in 2008.

Despite the program drawbacks described above, consecutive groups of students have passed through the new lower secondary school. Did it bring the expected results?

Poland was lucky that the PISA international assessment of students [4], [5] was introduced with perfect timing. The first assessment in Poland took place in 2000, when Polish 15-year-olds were still graduates of the previous system. The next assessment, in 2003, covered graduates of the newly created lower secondary schools.

The results in 2000 were below the OECD average. Data analysis was clear in
showing the factor pulling the results of Polish students down: the lowest results were achieved by students who had transferred to basic vocational schools after the 8-year elementary school. About 20% had basic difficulties with understanding and interpreting simple texts, and were graded at levels 1 and 2 on the PISA scale.

Three years later Polish students’ results improved significantly. From among students who chose basic vocational schools as their next educational step after lower secondary school, only around 7% scored at the bottom levels of the PISA scale. Starting from 2003, subsequent PISA cycles have shown further small but statistically significant progress for Polish students. As before, the gain was mainly achieved by decreasing the fraction of students at the lowest competency levels.

Thus, the extension of general education by one year led to a dramatic improvement in the weakest students’ results. It should be also noted that the highest achievers’ results remained stable, i.e., these students did not pay the price for the educational improvement of their less gifted colleagues.

A careful study of the PISA results, conducted on an item-by-item basis [6], [7] resulted in a study showing the strengths and weaknesses of Polish lower secondary school students. The conclusions of this research provided the basis for the 2008 curriculum reform.

There is one more issue concerning the reform at upper secondary school level: the implementation of profiled upper secondary schools ended in failure. Despite the fact that around 1,500 [1], [2] of these schools were created, as a concept it did not gain ground on the other two more expressive types of school: the purely academic upper secondary school (liceum) and the professionally oriented vocational upper secondary school (technikum). The number of students selecting a profiled school has dropped from year to year, and in 2011 there were only 438 [1], [3] such schools.

The authors of the reform were conscious that this could happen. They wanted to transform all vocational schools into profiled upper secondary schools. If implemented, the situation today would probably look different. However, there was very strong opposition from teachers of the remaining two types of the upper secondary schools against transforming their schools into profiled schools. In contrast to the elementary-into-lower-high transformation described earlier, this subsequent change was perceived as a degradation, and hence all possible factors (including political) were activated to make this reform impossible.
Managing conflicts

As mentioned earlier, the creation of around 7,000 lower secondary schools required many elementary schools to be closed, and students and teachers to be transferred somewhere else. This created the basis for hundreds of potential local conflicts. Parents are usually very worried when their children start having to take a bus to get to a distant school, rather than walking as before. The idea of “our school” is very strong in small communities, especially in the case of a school the parents themselves attended.

The transition period was therefore potentially very difficult. There were protests, but these faded sooner or later, and in fact they had little to do with the general objectives of the reform, which were not challenged. It was generally accepted that Poland needed better graduates and more people with higher education. In principle, the objectives formulated at macro level are easy to accept; however it was quite hard to relate to them at micro level. Thus, accepting the transformation of “our” local elementary school into a lower secondary school was a potential issue. Protests were handled by local government in the majority of cases. Local authorities, which had more trust and authority, were able to handle the situation quite smoothly. Others had to struggle. Luckily, the introduction of such wide-reaching reform has built-in flexibility – a given option can be replaced with a close enough alternate solution.

It should be remembered that it was still a unique time in Poland, with many other sectors also undergoing structural changes. There was widespread understanding that these changes were necessary to transform the system to democracy. This was very helpful, as today such a change would be much harder. But even then there were local protests. As Irena Dzie¿gowska, deputy education minister at the time, said: “we counted the local protests on a daily basis; it there were less than 300, we moved ahead!”. In most cases what proved a convincing argument for parents was the impression of the school that their children would attend after completing elementary education: the opinion prevailed that the new school would be an improvement, and thus it would be better to send the child there than to keep him/her at the old but inferior school.

Another important lesson learned on this occasion is that it is not enough to be satisfied with the disappearance of protests. An equally important role is played by nurturing the public image of the new type of school. It is very difficult to establish a positive social image for a new structural solution. A persistent and long-term program to build bridges in the public consciousness between macroscale goals and micro-scale realities is an important factor which should not be underestimated. In all probability, this will need to continue for at least a generation until the solution is accepted without serious doubts; there has to be a waiting period until lower secondary school graduates send their own children to the same type of school.

What was not clear at the beginning but is becoming clear now, after 13 years, is that a persistent effort from the government in support of the new solution is needed until the generation gap is filled. There is a constant and potential danger that sentiments towards the old solutions will take over. This is also happening in Poland
despite evidence of the new solution’s obvious advantages, as cited earlier. For every election campaign, the issue of coming back to the old, “traditional” educational system returns.

Implementation of curriculum reform

As mentioned earlier, the Polish education authorities now realize that structural reform should have been accompanied by precise specification of the educational tasks assigned to each element within the reconstructed system. The lack of such a specification led the new system elements to drift naturally towards approximating the past.

Why was this issue not recognized at the beginning of the reform? The answer to this question is twofold. First of all, the structural reform had a built-in “change-of-program” dimension. It introduced the freedom for schools to create or select programs – to find a fit with students’ needs. At the time, this was already a revolution. What was missing was a redesign of the national curriculum. All previous curricula were process-oriented – it was believed that a well-designed process would guarantee the desired outcomes. Later experience showed that this rule only works in education when we work with uniform groups of students. This experience is described below.

In the case of the Polish structural reform, it was observed after a few years that some lower secondary schools were drifting towards the old upper secondary schools, while others ignored the general objectives and reduced their function to adapt students to the minimal examination requirements of the central assessment system.

In around 2007 this problem became urgent for two reasons.

The first was the process of massification in Polish higher education. The number of students at Polish universities had increased fivefold since the 1990s. Although desired, this social phenomenon was not the result of any governmental campaign. It seems to be the cumulated outcome of the quite reasonable choices made by individual Polish families, trying to ensure the best future for their children in the political transition period, which brought a changing and therefore unpredictable reality. Thus, half of the cohort goes to a higher education institution.

It may look from the last paragraph as if the first main goal of the reform was merely a self-fulfilling wish, but the reality was not so easy. It took a lot of effort to accommodate those who wanted to study at higher education institutions. First of all, the law on higher education allowed for a rapid increase in the private higher education sector. Over a short period of time, over 300 new institutions were established, on top of the existing figure of approx. 130 public institutions [8]. Most of the new HEIs were quite small, offering just a few study programs – quite often just one. They accommodated about 30% of all students [8].

The remaining students enrolled at public higher education institutions, which created additional places for them. This took a substantial effort on the part of these
institutions, as the state subsidy for public higher education institutions remained at the same level; the increase was financed by tuition fees paid by the extra students. Nevertheless, the social drive to educate young people was an indispensable factor in achieving the goal of increasing participation in higher education. This drive can be expressed in numbers: in the peak year, the extra students brought an additional PLN 4 billion [8] into the system, on top of the 11 billion funded by the state. The education reform met public expectations perfectly with respect to higher education.

To enter a university, you first have to successfully complete education at the right schools. First of all, you cannot drop out. In fact, the early school leavers rate in Poland is only 5%, among the lowest in Europe [9]. Secondly, 80% of the cohort choose upper secondary schools, and only 20% select the basic vocational schools – before reform, the proportion was 50-50.

This wave brought a group of students to upper secondary schools with very diversified abilities, but also with a very diversified knowledge brought from lower high school; some students had covered some parts of the upper secondary curriculum, while many others had essential gaps in the basic skills which should have been acquired before entering an upper secondary school. Many upper secondary school teachers claimed that it was almost impossible to teach – they had been used to working with a quite uniform and far less diversified segment of the population over the past decades. Moreover, their past students were usually from families with a high socio-economic status; now they had a cross-section of society as a whole.

In such a diversified learning environment, it becomes crucial to keep careful track of the learning outcomes achieved by students. For this purpose, clear rules are necessary. Some measures are also needed to give the right direction to the teaching of different subjects, in order to ensure the most effective achievement of general educational goals.

The need to reconsider the expected learning outcomes of school students gave rise to another urgent task. The European job market, now open to all EU citizens, created the need for a mechanism to compare qualifications. This has led to the European Qualification Framework (EQF) and the fundamental idea that qualifications awarded by authorized institutions (e.g. schools) should be defined in terms of learning outcomes in the categories of knowledge, skills and social competencies. Poland, like all EU countries and many others around the globe, has decided to adopt the EQF.

Under these circumstances, a decision was made to create a new national curriculum which would:

- Describe the expected learning outcomes for each stage of education,
- Indicate the main objectives of teaching each school subject,
- Define the requirements of central assessments,
- Constitute a coherent part of the Polish Qualifications Framework.

This was achieved between 2007 and 2008, and is being gradually implemented at schools. The main implementation phase ends in 2015, with a one year extension in the case of vocational upper secondary schools (4-year technikum).
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 the more general aims, as defined by the general requirements.

This document is also the only description of the requirements for the central exams. Again, the general requirements are the most important regulator for exams. For example, each mathematics exam has to contain a problem starting with words "prove that...", since mathematical reasoning and argumentation is one of the requirements. It is already visible that proof in math classes has returned to classrooms.

Although the examples presented above dealt with mathematics, the same method is applied to all other subjects. For example, one of the main general requirements for history is "critical analysis of information sources". This is without doubt a crucial competence in the contemporary world, which is flooded with (not always credible) information.

The new curriculum clearly constitutes the backbone of the Polish education system transparently indicating the objectives of school education to all stakeholders (students, teachers, parents and local government).

The curriculum for basic vocational education has also been modified. It defines around 300 professions in terms of expected learning outcomes. It also introduces the idea of modularity in vocational education: professions have been split into the component qualifications. This increases the flexibility both of the schools and of their graduates – schools find it easier to adapt to new professions and graduates can easily reconfigure their qualifications.

However, it should be noted that the high educational aspirations of young people in Poland have created structural mismatches on the labor market for skilled blue collar workers. This is a temporary problem – it takes time for both employers and potential employees to realize the role that higher education plays in less traditional segments of the labor market. Many countries with higher education participation rates exceeding Poland’s ratio have been successful in solving this problem.

Finally, a similar path was taken to resolve the dilemmas in higher education caused by the massification effect. Diagnosis of the situation almost exactly mirrors the problems in upper secondary schools, as described previously. Polish universities, which for decades had admitted only the 10% most talented school graduates, were confronted with the challenge of teaching very diversified groups of students. Again, identification of the learning outcomes actually achieved became a necessity. This was realized early on by the academic community and noted in the draft strategy on the
development of higher education in Poland, developed by academics and elaborated in 2008-2010. As a remedy, implementation of the Polish Qualification Framework in higher education was suggested.

Of course there is no need for a national curriculum here; in fact the academic potential of universities gives its best results when allowed to act autonomously – this is an old truth, dating back to Middle Ages. Thus, the Polish Qualification Framework for Higher Education was implemented, as a logical part of the Polish Qualification Framework for Lifelong Learning, as follows:

- Eight major teaching domains have been defined by the generic expected learning outcomes in the categories of knowledge, skills and social competences (humanities; social sciences; exact sciences; life sciences; technical sciences; medical sciences, health sciences, and sciences of physical education; agricultural, forestry and veterinary sciences; and fine arts),
- Universities were given complete autonomy in developing study programs – in the past, the list of fields of studies was governed by the Ministry of Higher Education; each field of study had a state approved standard, describing to some extent the teaching process,
- When designing a new field of study, the university is required to define it in terms of expected learning outcomes, with reference to the generic learning outcomes derived from one or more major teaching domains,
- The learning outcomes actually achieved are to be carefully observed, reported yearly by deans to the faculty and discussed by departmental authorities. This process is assessed by the Polish Accreditation Commission, which conducts an obligatory evaluation of all Polish higher education institutions. If a program is evaluated as unsatisfactory, the Minister of Higher Education is required by law to either suspend or close it.

Thus the whole Polish education system, including higher education, is now based on expected vs. achieved learning outcomes, as (perhaps) the only effective solution for the modern world of mass education.

Lessons for transition economies

In a very condensed form, the previous sections of this note present the central tenets of the Polish education reform undertaken as a part of the country’s deep systemic transformation during its transition from communism to democracy.

Other transition economies can learn several lessons from this experience.

- The transition period has social potential which, when competently addressed, can become an important success factor. During the period of a transition, society is ready to accept changes which would probably be unacceptable or very hard to accomplish in "normal" times. In addition, during such a unique period, mutually opposed political forces tend to be less partisan and do not challenge the implementation of certain reforms, even if the implementation process is led by their opponents.
It is also possible, and in fact became reality in Poland, that the society generates certain positive solutions on its own. It would be very hard to encourage the public in any country to send every second child to university, after decades of a tradition in which only the most talented few could dream of a degree. It is also very difficult to convince society that continuing education beyond the age of 15, rather than seeking a job, is the more profitable solution (quite a few European countries work hard to convince their citizens of this conclusion). A similar phenomenon was noted in 2008, when foreign languages were first introduced at the beginning of elementary school in Poland. The government soon discovered that even before, in more than 30% of classes, language courses were already present, and were being paid for by parents or local authorities. This was simply considered by parents a means to improve children's chances of a better future.

Social initiative and tolerance for change are assets which should be evaluated carefully and employed as a tool for reform. It should also be emphasized that this type of social flexibility might well be temporary and may slowly disappear with time.

- Any implemented reform seems to gravitate towards an equilibrium state of nostalgia. All parties involved have the tendency to assimilate change in a way which is as close to the previous state of affairs as possible. This process is especially strong in education, as there are universal memories of the education system experienced personally, and these memories tend to idealize the past education system. In particular, many parents express the view that it would be best for their children to follow almost the same, familiar educational path as they did. Any change is a potential source of anxiety that change will be for the worse, because they remember themselves as satisfied with the previous system. An additional difficulty is created by the fact that some changes are implemented on the basis of national-level analysis, with no immediate justification to be found in an individual's personal experience. Opinions starting with "As a teacher with 30 years of experience, I see no reason for..." are often prevalent.

The above has to be dealt with carefully through a well-designed information process. This requires better information skills every year, as the development of new information technologies gives increasing power to a growing number of people, enabling them to freely distribute false or (at best) unverified information.

The gravitation towards the past in Polish education reform has been indicated at several points in this report.

- Systemic reform of the school system should be accompanied by appropriate reform of the curriculum which clearly defines the status of the new constructs, and prevents them from becoming merely a distorted version of the old system.

- The concept of expected learning outcomes has proved very useful. It has to be transparent, as it directly addresses the duties of teachers and students and ensures consistency between the validation process and the remaining elements of education. It also makes the assessment system more predictable, which releases some psychological tension related to the unpleasant process of knowledge verification.

The idea of expected learning outcomes is also consistent with the general
idea of describing qualifications acquired through lifelong learning. In this context, qualifications gained at school are only part of the long road of adaptation to labor market needs. Describing expected learning outcomes creates a friendly environment for people considering a return to school at a later age to improve their competences, giving them an *a priori* self-assessment of knowledge and skills. Thus, it encourages people to engage in the lifelong learning process.

- In countries which have a central assessment system, this is a key tool for implementing reform in classrooms. It is specially so when the system addresses complex competencies through exams. In the Polish system, it is forced by the layer of general requirements in the national curriculum.
- The creativity of teachers should not be overestimated as far as the overall teaching process is concerned. In general, teachers are only better at inventing good ideas on how to teach in certain contexts. Of course, this is also an asset which can be used to build quality of education, if properly guided. The learning outcomes approach, introduced in the national curriculum and consequently implemented by the system of state examinations proved to be a very effective tool of change in Polish education. However we also have good examples of teachers’ initiatives which have very positively influenced our schools. For example, in Poland there is a long tradition of subject-specific competitions (termed Olympiads) at upper secondary schools. In contrast to the experiences of some countries, school Olympiads in Poland still remain faithful to the spirit of amateur sport – there have never been specialist schools preparing elite students just for this purpose. A few years after lower secondary schools were created, a movement of teachers was formed, who initiated Olympiads for their students. First was the mathematical Olympiad for lower secondary schools, which was created by a group of active teachers in 2006. It was followed by the computer science and the English Olympiads. Today these are available to lower secondary students every year across the country. Last year, the lower secondary school math Olympiad had about 13,000 participants, [10] encouraged by the sporting spirit to solve quite demanding mathematical problems.

Poland did not start the education reform with an “off-the-shelf” package. From today’s perspective such a package can easily be discerned with hindsight – the factors and their roles in the process can now be identified. Could they be identified 20 years ago? In principle yes, but some elements in the process were difficult to predict.

This note cannot serve as a “ready-to-implement” package for other countries. In several places it stresses social momentum and its significance for the success of the whole process. Also the cultural specificities of the given country play an essential role in reforms on that scale. The readiness of the Polish population to take “things in own hands”, after decades of communist oppression was a significant factor. This was unique and it is willful thinking to expect that it will be the same in other circumstances. However, identification of the main factors in one country’s experience gives quite a good approximation to what to expect in general.
Summary and conclusions

The educational reform in Poland was an important part of the transition from communism to democracy. Its main aim was to improve the quality of learning outcomes achieved, and to increase the proportion of higher education graduates.

The reform had several major components.

- The decentralization of management in general and vocational education by transferring responsibility for the operation of schools to local authorities,
- The extension of the universal general education period from 8 to 9 years. This was achieved by creating a new type of school – the 3-year lower secondary school,
- The curriculum reform, which shifted attention from the process to its outcomes. The primary objective of this description was to identify the complex competencies which should guide the education process at Polish schools,
- The broadening of the academic freedom of Polish universities by allowing them to freely create new study programs,
- The increase in transparency and accountability of Polish universities, by requiring that all programs must be defined through expected learning outcomes.

The entire reform, in particular the structural reform of schools, had very important social ramifications. It is clear that the implementation of the reform process would be impossible without it being intertwined with the far more general (and significant) process of decentralizing the Polish administration. Both anxiety about reform and the social potential for positive action played a significant role in the process. The positive aspects ultimately won, due to the crucial role played by local government authorities. Was decentralization of the administration therefore a necessary element of the reform? In the Polish case the answer is definitely yes. As for other countries which have well-organized local structures, it is still crucial for these to be actively involved in the process. In fact, this is the level of authority which, based on social trust, has to bridge the gap between macro-scale goals and the micro-scale realities of local communities.

The social dimension of the process plays an important role long after the formal decisions have been implemented; full acceptance of any deep change in the education system probably needs a generation.

Even though this note does not provide a ready-to-use prescription for education reform, it carefully gathers all factors essential for the process. It may prove most useful for countries which aim at

- an improvement in learning outcome achievement, especially among the weakest school students,
- a rational system for dealing with the massification of higher education.
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