# Green Book

FOR THE RENEWAL OF PUBLIC EDUCATION IN HUNGARY

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## FOR THE RENEWAL OF PUBLIC EDUCATION IN HUNGARY

ROUND TABLE FOR EDUCATION
AND CHILD OPPORTUNITIES

HUNGARY TOMORROW

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# Foreword

The world is rapidly becoming a different place, and the challenges to individuals and societies posed by globalisation and modernisation are widely acknowledged. Increasingly diverse and interconnected populations, rapid technological change in the workplace and in everyday life, and the instantaneous availability of vast amounts of information represent but a few of these new demands. In this globalised world, individuals and countries that invest intelligently in education benefit socially and economically from that choice, and increasingly so. Among the OECD countries with the largest expansion of tertiary education over the last decades most — and few countries more so than Hungary — have still seen rising earnings differentials for tertiary graduates, suggesting that an increase in knowledge workers does not lead to a decrease in their pay as is the case for low-skilled workers.

The other player in the globalisation process is innovation and technological development, but this too depends on education, not just because tomorrow's knowledge workers and innovators require high levels of education, but also because a highly-educated workforce is a pre-requisite for adopting and absorbing new technologies and increasing productivity. Together, skills and technology have flattened the world such that all work that can be digitised, automated or outsourced can now be done by the most effective and competitive individuals, enterprises or countries, wherever they are. The scale of the impact of these developments was magnified by the collapse of communism, India's turn away from autocracy and China's shift to market capitalism. This allowed another three billion people who had previously been locked out of the global economy because they lived in largely closed economies with vertical, hierarchical political and economic structures, to collaborate and compete with everyone else. All of this has led to a growing productivity gap between those who are well educated and those individuals — and nations — who struggle with the transition to the knowledge economy.

For a long time, global educational comparisons suggested that Hungary was well positioned. Enrolment in education has traditionally been high and still two decades ago Hungarian students consistently outperformed their counterparts in much of the industrialised world in international tests of mathematics and science performance. However, the most recent PISA assessment in 2006 showed Hungarian 15-year-olds performing just around the OECD average level in science, Hungary's traditional strength, and in other subject areas below OECD standards. Equally important, the results showed large variations

in the quality of schooling and an unusually strong impact of social background on success in school. Even where this is not because Hungarian performance standards have declined but because those in others countries have risen faster, it does show that the yardstick for success has changed; as in this globalised world, it is the best performing education systems, not merely improvement by national standards, that shape the future life chances of today's students.

The problem is that Hungary's past success offers few solutions for the future. That is not just because the environment and incentive structures that shaped Hungarian schooling have fundamentally changed, but much more importantly so because the kind of skills that were valued in those past assessments in which Hungary excelled, are rapidly losing their relevance in today's labour markets. In the OECD's most flexible labour markets, it is now routine cognitive skills, no longer manual skills, that are seeing the sharpest decline in demand; that means, it is those middle-class white-collar jobs that build on the application of routine knowledge, that are most at threat today. The reason is that the skills that are easiest to teach, and that are easiest to test, namely those skills that involve the mastery of subject matter content, are also the skills that are easiest to digitise, automate and offshore: Because such tasks can be accomplished by following a set of rules, they are prime candidates for computerisation. Furthermore, rules-based tasks are also easier to offshore to foreign producers than other kinds of work: when a task can be reduced to rules — *i.e.* a standard operating procedure — the process needs to be explained only once, so the process of communicating with foreign producers is much simpler than the case of non-rules based tasks where each piece of work is a special case. By the same token, when a process can be reduced to rules, it is much easier to monitor the quality of output. The dilemma is mirrored in Hungary's performance on PISA: While Hungarian students tend to do well on tasks that focus on the reproduction of science or mathematics knowledge, they face much greater challenges in solving tasks that require them to extrapolate from what they know and apply their knowledge in novel, unfamiliar settings. Similarly, while they demonstrate reasonable subject matter knowledge in fields like physics, chemistry or biology, they show weaknesses in their knowledge about the nature and paradigms of science itself as well as in their capacity to see the personal and social life chances which science may open. In a world, where much of the science knowledge that today's 15-year-olds will require in their future lives does not exist at the time they go to school, that poses major challenges to the ways in which Hungarian students learn, Hungarian teachers teach and Hungarian schools operate.

The challenges which education systems face can no longer be successfully addressed by incrementally stretching 19th century school systems with 20th century teachers to teach 21st century students. In this world, where virtually everyone will have to acquire high-level skills, the task in many countries is to transform great sorting engines, that worked well when schools could afford to give everyone the same treatment with a one-textbook-system polished through decades in order to distinguish those who are more talented from those

who are less so, into mass-customised learning systems that identify and develop the extraordinary talents of ordinary students. As Chapter 9 lays out, this is about creating a "knowledge rich" evidence-based education system, in which school leaders and teachers act as a professional community and have the authority to act, the necessary information to do so wisely, and access to effective support systems to assist them in implementing change. Of course, everywhere education is already a knowledge industry in the sense that it is concerned with the transmission of knowledge; but in many countries education is still far from becoming a knowledge industry in the sense that *its own practices* are being transformed by knowledge about the efficacy of *its own practices*. In many other fields, people enter their professional lives expecting their practice to be transformed by research, that is not yet the case in education. There is, of course, a large body of research about learning but much of it is unrelated to the kind of real-life learning that is the focus of formal education. Even that which is, has an insufficient impact when practitioners work in isolation and build their practice on folk wisdom about what works. Central prescription of what teachers should do, which still dominates Hungarian schools, will not transform teachers' practices in the way that professional engagement, in the search for evidence of what makes a difference, can.

At the same time, the very international comparisons that highlight challenges in a national context also point the way forward by showing what can be achieved with a combination of the right strategies and courageous, sustained leadership. Across the globe — whether it is Canada in North America, Finland in Europe or Japan and Korea in Asia — education systems demonstrate that excellence in education is an attainable goal, and at reasonable cost. They also show that the challenge of achieving a high and socially equitable distribution of learning outcomes can be successfully addressed and that excellence can be achieved consistently throughout the education systems, with very few students and schools left behind. In Finland, the best performing education system in all PISA assessments so far, the performance variation between schools amounts to only 5% of students' overall performance variation — less than one tenth of the performance variability of Hungarian schools — so that parents can rely on high and consistent performance standards in whatever school they choose to enrol their children.

Cross-sectional international comparison alone cannot identify cause-and-effect relationships between certain factors and educational outcomes, especially in relation to the classroom and the processes of teaching and learning that take place there. However, they do reveal what is possible in education as well as some of the features associated with successful performance. With its science and evidence driven approach, the report takes up the challenge to evaluate the lessons that might be learned from policies and practices developed elsewhere, without rejecting experiences developed and applied in other socio-cultural contexts, as policymakers and practitioners alike so often do, following the principle that they would not take a medicine if they had not been chosen to take part in its clinical trial. At the same time, the report does

not fall into the trap of trying to copy and paste other educational systems or experiences, but rather seeks to develop an understanding of the policy drivers that contribute to the success of other education systems and then to situate and configure these policy drivers in the Hungarian context. Some lessons from internationally comparative analysis are worth recalling.

First of all, many of the high performing education systems have pursued a shift in public and governmental concern away from the mere control over the resources and content of education towards a focus on outcomes. This has driven efforts to articulate the expectations that societies have in relation to learning outcomes and to translate these expectations into the establishment of educational goals and standards, with the aim to establish challenging content at all grade levels; reduce overlap in curricula across grades; reduce variation in implemented curricula across classrooms; facilitate co-ordination of various policy drivers ranging from curricula to teacher training; and reduce inequity in curricula across socio-economic groups. Coupled with this have been efforts to devolve responsibility to the frontline, encouraging responsiveness to local needs, and strengthening intelligent accountability. The report takes this up too, calling for a similar shift from telling teachers what to teach towards defining demanding, clear, and rigorous standards that establish a shared vision of what good performance is through the stages of primary, secondary and vocational education (Chapters 2, 3 and 4). It does so building on an advanced concept of competency that moves beyond the mastery of subject matter content, requiring students to mobilise a broad range of psychosocial resources, including knowledge and skills, motivation, attitudes and other social and behavioural components to address complex demands.

Second, while many education systems have decentralised decisions concerning the delivery of educational services, they have often kept or even tightened control over educational goals, the design of curricula, standards and testing. What distinguishes the approaches to professional accountability developed in Finland, the use of pupil performance data and value added analyses in England, and the approaches to school self evaluation in Denmark, is that these strike a careful balance between using accountability tools to maintain public confidence, on the one hand, and to support remediation in the classroom aimed at higher levels of student learning and achievement on the other. These countries have gone beyond systems of external accountability towards building capacity and confidence for professional accountability in ways that emphasise the importance of formative assessment and the pivotal role of school self-evaluation. In Finland, for example, strategic thinking and planning takes place at every level of the system. Every school discusses what the national standards might mean for them, and decisions are made at the level of those most able to implement them in practice. Where school performance is systematically assessed, the primary purpose is often not to support contestability of public services or market-mechanisms in the allocation of resources. Rather it is to provide instruments to reveal best practices and identify shared

problems in order to encourage teachers and schools to develop more supportive and productive learning environments. Clearly, external accountability systems are an essential part of modern education, but they are not enough. Among OECD countries, we find countless tests and reforms that have resulted in giving schools more money or taking money away from them, developing greater prescription on school standards or less prescription, making classes larger or smaller, often without measurable effects. What distinguishes many of the high performing systems is that they place emphasis on building various ways in which networks of schools stimulate and spread innovation as well as collaborate to provide curriculum diversity, extended services and professional support. They foster strong approaches to leadership and a variety of system leadership roles that help to reduce between-school variation through system-wide networking and to build lateral accountability.

Third, comparative analysis suggests that the establishment of standards and accountability systems needs to go together with access to best practice and professional development in schools, in ways that support teachers to use data and evidence to expand their repertoire of pedagogic strategies in order to personalise learning for all students and to adopt innovative approaches to timetabling and the deployment of increasingly differentiated staffing models. Many of the high performing education systems share a commitment to professionalised teaching, in ways that imply that teachers are on a par with other professions in terms of diagnosis, the application of evidence-based practices, and professional pride. They succeed in attracting the best graduates to become teachers, realising that the quality of an education system cannot exceed the quality of its teachers. For example, countries like Finland or Korea recruit their teachers from the top 10 percent graduates. They also succeed with developing these teachers into effective instructors, through, for example, coaching classroom practice, moving teacher training to the classroom, developing strong school leaders and enabling teachers to share their knowledge and spread innovation. They develop good support systems so that individual teachers become aware of specific weaknesses in their own practices, and that often means not just creating awareness of what they do but changing the underlying mindset. They also seek to provide their teachers with an understanding of specific best practices and they motivate teachers to make the necessary changes and that is something that goes well beyond material incentives. Many of the high performing systems construct effective interventions at the level of the school, identifying schools that do not perform well and providing them with effective support systems. Countries like Finland go even further and intervene at the level of the individual student, developing processes and structures within the school that are able to identify whenever a student is starting to fall behind, and intervening to improve that child's performance. Intervention and support do not mean applying pre-packaged interventions in mechanical sequence, instead, they require diagnosing problems and tailoring solutions accordingly. The report takes much of this agenda is taken up in Chapter 8.

While Hungary's educational challenges are not limited to poor kids in poor neighbourhoods, but indeed extend to most kids in most neighbourhoods, the unusually tight relationship between social background and learning outcomes in Hungary is worrying, and the report devotes considerable attention to this in Chapters 1, 5, 6 and 8. In many of the countries achieving high and equitable performance standards, it is the responsibility of schools and teachers to engage constructively with the diversity of student interests, capacities, and socio-economic contexts, without having the option of making students repeat the school year, or transferring them to educational tracks or school types with lower performance requirements, still common in countries like Hungary. To achieve this, they seek to establish bridges from prescribed forms of teaching, curriculum and assessment towards an approach predicated on enabling every student to reach their potential. What distinguishes the education systems of, for example, Victoria in Australia, Alberta in Canada, or Finland is the drive to make such practices systemic, through the establishment of clear learning pathways through the education system and fostering the motivation of students to become independent and lifelong learners. Obviously such "personalised learning" demands both curriculum entitlement and choice that delivers a breadth of study and personal relevance. But the point is that the personalisation is in terms of flexible learning pathways through the education system rather than individualised goals or institutional tracking, which have often been shown to lower performance expectations for students and to provide easy ways out for teachers and schools to defer problems rather than solving them. Finally, it is noteworthy that many of the world's most successful education systems invest the money where the challenges are greatest, and they put in place incentives and support systems that get the most talented school teachers into the most difficult classrooms, which the report takes up in Chapter 10.

In conclusion, the report provides a science-based perspective for how Hungary can transform its education system to move from "hit and miss" policies to establishing universal high standards, from uniformity in the system to embracing diversity, from managing inputs and a bureaucratic approach to education towards devolving responsibilities and enabling outcomes, from talking about equity to delivery equity, and from a system where schools no longer receive prefabricated wisdom but take initiatives on the basis of data and best practice. The road from a comfortable, introverted, input-focussed, and evidence-light approach towards a demanding, outward-looking, results-focussed, and evidence-informed approach will be steep. But addressing the challenges will become ever-more important as the world has become indifferent to tradition and past reputations, unforgiving to frailty and ignorant to custom or practice. Success will go to those individuals and countries which are swift to adapt, slow to complain and open to change. The task for policy makers in Hungary will be to ensure that the country rises to this challenge.

Andreas Schleicher
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# Introduction

[Károly Fazekas ▪ János Köllő ▪ Júlia Varga]

## ▪ THE RENEWAL OF EDUCATION – HUNGARY'S FUTURE IS AT STAKE!

In the world of learning, Hungary is being left behind by its peers. Notwithstanding the series of reforms in recent years, the knowledge gap separating us from the most highly developed regions of the world has been widening rather than closing. Local and international assessments unequivocally show that there are serious problems with the education of not only the average Hungarian citizen but also young adults and students still at school.

### Where is the world heading and where are we going?

An international survey[1] — involving 21 countries — of adult literacy in the period 1994–1998 revealed that 70 per cent of the Hungarian non-student population aged 16–32 years (who are under 40 at present) have very poor text comprehension skills — levels one or two on a five-point scale — while the corresponding figure is only 50 per cent for the whole sample and 45 per cent for Western Europe. 60 per cent of Hungarians showed poor performance in understanding simple documents while the share of this group is only 49 per cent across all the countries included and 42 per cent in Western Europe. Hungary has traditionally fared better in simple numeracy skills but in this survey the share of poor performers corresponded to the international average in this area — both proportions came to exactly 47 per cent — and was greater than the Western European average (40 per cent). In Hungary there are similar serious problems concerning the skills of young people still at school. Hungarian 15 year olds showed poor performance both in mathematics and in reading comprehension tasks in the PISA survey[2] of 2003, which involved 40 countries including 29 developed industrial OECD nations: Hungarian students ranked only 19th-20th among OECD countries. The share of students showing an extremely poor performance — below level three — was 47 per cent for both competences, which is 5 per cent higher than the OECD average. Around 20-25 per cent of Hungarian young people do not achieve the level of proficiency in reading and writing that would be needed for future studies and for work.

[1] IALS: *International Adult Literacy Survey.*
[2] PISA: *Programme for International Students Assessment*.

Some areas are characterised in Hungary by a real decline while for other competences the widening gap is a result of faster progress in peer countries. The position of Hungary has declined dramatically in mathematical and scientific literacy. Twenty years ago 14 year old students were listed first in the international ranking of science proficiency as assessed by the SISS survey[3] of 1983-1984. Hungary outperformed countries such as the currently top achieving Finland, Japan, South Korea and Singapore. In the first years of the new millennium the competences of our students only secured an average position in the range: 7th position in the TIMSS survey[4] of 2003 and only 11th position in the PISA survey of 2003. The view that the Hungarian average may be mediocre but that there is a narrow student elite with excellent, internationally competitive outcomes can no longer be upheld. The surveys reveal that our position does not improve if the best ten to fifteen per cent of our students are compared to top performers in other countries. The results of literacy assessment among young adults reveal that the median Hungarian score and the highest scores (the scores of the top twenty and the top ten per cent) equally fall behind the corresponding international values. The results of the PISA survey of 2003 display the same picture: whether we look at text comprehension, mathematical or scientific literacy the top 10-20 per cent of Hungarian students lag behind the best performers in other countries just as much as the average Hungarian student lags behind the international average.

The knowledge acquired in Hungarian public education — especially at primary and vocational schools — is of little practical use in everyday life; it is not sufficient for fulfilling duties or roles in the service sector or in modern manufacturing industry. Research results indicate that in Hungary people with eight years of primary education or with vocational training have much lower odds of finding employment requiring literacy skills or competences building on these skills — be it in industry, commerce or the service sector — than their Western European peers having the same number of school years. Hungarian companies seek employees with secondary or higher education even for positions that involve just a few reading or writing duties, which greatly limits the job prospects of people with lower educational attainments and keeps their wages at a low level. People with less than eight years of primary education have been excluded from the labour market to an unprecedented extent: their employment rate remains below 40 per cent, which is 20 percentage points lower than the corresponding rate in Western Europe. A considerable proportion of this group has been replaced by workers with vocational training, at low wages. Vocational certification has lost its value: the wage advantage of the 3-4 years of training is now less than 10 per cent in industry and has vanished in commerce and other services while upper secondary education qualifications (the *Matura*) have a wage advantage of over 40 per cent. These facts clearly

[3] SISS: *Second International Science Study.*
[4] TIMSS: *Trends in International Mathematics and Science Study*.

show that vocational training does not equip students with the general skills essential for adult learning and successful adjustment. This is, however, not simply a problem of vocational education: some pupils leave primary school with such poor knowledge and underdeveloped basic skills and competences that not even practical vocational training can be built upon them. (85 per cent of young adults with less than upper secondary education performed at level two or lower in the text comprehension task of the literacy survey.)

The decline in average performance and the enormous disadvantage of the worst achievers put our children at risk of not being able to hold their own as adults in the world of all-encompassing international competition. The question is whether there is a way of reforming a country's education system in such a way that it becomes a driving force for progress. The question has been settled in recent decades: several countries have demonstrated that the answer is unequivocally yes.

The Scandinavian countries, in the lead in matters of education, have aroused the admiration of the world in several respects. They claim the top positions in terms of economic competitiveness and are among the world's very best in terms of several indicators of quality of life — which may include high life expectancy, efforts to protect the environment or low levels of crime and corruption. These countries have not emerged from nowhere; they had favourable circumstances to start with but then soared from an average position to the cutting edge in just a single generation. It is now known that Scandinavian countries owe this spectacular progress to their excellent standards of public education and to life-wide learning. Their performance in international competence surveys is a convincing demonstration of their achievements. These competence surveys have also drawn the world's attention to another group of countries. Southeast Asia's "tiger cubs" came from an extremely low level but shot to the frontline of the modern world in a single generation. The countries of the two regions have very different cultures and political structures but they display very similar attitudes toward knowledge and learning: their spectacular progress was propelled by their radically restructured education systems. In the United States educational reform was first set in motion by the Sputnik shock (the realization that their assumed superiority, in the technical and scientific arena, over countries such as the Soviet Union, had drastically diminished) in the sixties. America's uncommonly poor performance in international surveys and the spectacular rise of Asian competitors then gave a further push to reforms. In a country where immigration had constituted the main source of knowledge replenishment for centuries, almost fifty years of conscious and focused efforts were needed to produce perceptible results: from the rearmost positions occupied in the seventies, American children have, at the present day, climbed to the middle of the international range. Germany, which is culturally closer and more comparable to Hungary with respect to the emergence of the education system and its contemporary problems, is another country that has had to face the consequences of negative trends: the school system ossified and failed to go through the structural changes and content renewal demanded

by our modern age. The "PISA-shock" that followed the dissemination of the results of the international surveys eventually convinced the general public of the necessity for change. With an unprecedented concentration of financial and intellectual resources, large-scale development programmes were launched in response during the first few years of the new millennium.

The education model of Hungary was relatively successful for a long time; in certain periods and in some areas it produced outstanding achievements even by international standards. The essentially changeless, one textbook system polished through decades of teaching experience functioned reliably within its limits. There has been no obvious turmoil signalling the continuous process of decay, the gradual downward trend. By today, however, such a dense mass of problems has accumulated that the issue can no longer remain ignored. Most of the current tensions go back to the period before the regime change. The concerns of young people leaving the education system with a poor standard of knowledge insufficient for the mastery of relatively complicated skills did not become manifest under the previous political regime. The consequences of this fact are still reflected today in low employment rates.

The shift in the education system happened all at once, deprived of the advantages of organic development. Many children have been left out of nursery and kindergarten education; extreme differences have developed between schools in terms of the social backgrounds of their pupils; education policies have been helpless in curbing school segregation; and, as a result of the rising trend in the share of pupils enrolling in secondary education, the social composition of secondary schools has changed. School curricula and teaching methods have failed to keep pace with these major changes. While in the world at large curriculum development has grown into a science in its own right, in Hungary decentralisation has encouraged — has effectively forced — masses of teachers, without training of the appropriate kind, to develop local curricula. A stream of untested textbooks has flooded schools and there is nothing to ensure that a local combination of these can be amalgamated into a coherent source of knowledge. These circumstances encourage rote learning without comprehension. Pupils' laboriously acquired knowledge disintegrates, cannot be put into practice and is quickly forgotten.

The curricula that finally emerged — the way schools finally put their course contents together — the textbooks and teaching methods used in Hungary today, are decades behind the possibilities offered by our age and the system lacks any mechanism that could effect a change. No useable data are available on teaching quality and thus parents and school maintainers have no efficient means of monitoring school activities. There are no functional channels through which new knowledge could penetrate the education system: very little scientific research is done that could generate new and original knowledge, and both pre-service and in-service teacher training programmes, which could be a means of multiplying personal knowledge, are underdeveloped. In Hungary teacher education is characterised by overproduction in terms of quantity and underproduction in terms of quality.

The position of Hungary has not improved with respect to foreign languages either. While in Western countries even the man in the street is multilingual, in Hungary not even key intellectual leaders — such as teachers — can be expected to master at least reading knowledge of a foreign language. While billions of Hungarian forints have been spent on in-service teacher training in the past one and a half decades, teachers still cannot access the enormous stock of resources available on the World Wide Web because they lack the necessary foreign language skills. We have not made enough progress in making information technology accessible to teachers. The costly investment and development programmes cannot be exploited if teachers feel uneasy about the technology that has become an organic part of their pupils.

Subject education continues to regard the transfer of the narrow-focus competences of the day as its most important goal. No steps whatsoever have been taken, either preventative or interventional, to tackle the problem of students dropping out of secondary education on a mass scale.

The members of the Round Table for Education and Child Opportunities (OKA) are driven by the firm belief that the school system cannot be renewed through isolated reform initiatives, that education development is a national issue which does not belong in the domain of day to day politics and that reform processes should be set on course without delay. The mission of formal education, its role in creating knowledge, must be reinterpreted placing special emphasis on developing competences of everyday applicability and skills needed to adjust to adult life.

## ▪ THE ORIGINS AND ACTIVITIES OF THE ROUND TABLE FOR EDUCATION AND CHILD OPPORTUNITIES (OKA)

In November 2006 Benő Csapó, Károly Fazekas, Gábor Kertesi, János Köllő and Júlia Varga issued a report on the relationships pertaining between low employment rate and public education outcomes in Hungary as commissioned by the State Reform Committee (ARB).[5] The authors find that a comprehensive reform of the education system is a prerequisite to achieving a significant increase in employment level.[6] The report was debated by the ARB and, drawing on the

[5] The State Reform Committee (ARB) is a government committee set up by the second Gyurcsány administration entrusted with the task of assessing and evaluating the reform of state administration from a professional and political point of view. ARB was established by Government Decree No. *1061/2006 (June 15)* on institutional and personal issues in relation to the planning and implementation of the reform of state administration. The Decree defines ARB as a body responsible for advising the government on policies.

[6] A synopsis of the study was published in issue No. 46/2006 (November 17) of the Hungarian weekly *Élet és Irodalom*. (BENŐ CSAPÓ, KÁROLY FAZEKAS, GÁBOR KERTESI, JÁNOS KÖLLŐ & JÚLIA VARGA, A foglalkoztatás növelése nem lehetséges a közoktatás átfogó megújítása nélkül [Employment level

experiences of the debate, the Prime Minister proposed the establishment of a Round Table for Education and Child Opportunities with the objective of preparing a proposal on reforming the Hungarian education system.[7] The Prime Minister called on the authors of the report to draw up a green paper setting out the tasks of the Round Table.

The members of OKA were delegated by the Prime Minister, the relevant parliamentary committees, the Hungarian Academy of Sciences, the Council for Economic and Social Affairs, scientific and professional organisations, trade unions, business chambers and the Historical Churches of Hungary. The Prime Minister nominated the first named author of this introduction to act as President of OKA.[8]

The constitutive meeting of OKA was held on 20th March, 2007. The proposed goals of the Round Table were adopted and a paper summarising the methods and procedures of the Round Table was approved. The green paper evaluating the public education system and outlining the most important tasks was discussed and adopted as OKA's mission statement defining its goals and duties.[9]

### OKA's goals and methods

As stated in the mission statement adopted by OKA, "It is the goal of the Round Table to encourage a consensus in key issues affecting the whole of society in the short and the long term. It undertakes to initiate the preparation of discussion papers which are to be presented to and debated by the widest possible audience in an effort to produce proposals effectively furthering the work of the government of the time and law making processes.

The Round Table for Education and Child Opportunities strives to rely strictly on the unbiased analysis of attested facts in its activities and to consider the broadest possible range of expert opinion. The Round Table focuses on two main areas. Firstly, it undertakes to shed light on problems characterising the public education system right from the early years of childhood through to employment. Secondly, it seeks to define possible action plans for policy makers (the Parliament and the government) relying on the relevant literature and foreign experiences and taking into consideration the experiences, opinions and interests of the various groups concerned (teachers, students and parents).

cannot be increased without a comprehensive reform of public education].) http://www.es.hu/pd/display.asp?channel=PUBLICISZTIKA0646&article=2006-1119-2008-44EANC

[7] In parallel with the Round Table for Education and Child Opportunities, the Prime Minister proposed the establishment of two more Round Tables (the Round Table on Pensions and Old Age and the Round Table on Competitiveness).

[8] See *Appendix I1* for a list of OKA participants.

[9] http://oktatas.magyarorszagholnap.hu/wiki/1._ülés/tézispapír. Meeting dates and schedules are listed in *Appendix I2*.

In identifying problems and drafting action plans the Round Table relies on professional studies and effects analyses produced by recognised experts. Online discussion forums are set up and moderated by the Round Table to learn the opinions of the different groups affected by the reform. Conferences are organised to discover and discuss the outcomes and experiences of other countries.

It is not, however, the responsibility of the Round Table but that of the government and the Parliament to decide which of the proposed action plans should be adopted and to implement the necessary legislative and state administration measures."[10]

The major rules regulating the activities of the Round Table are set out in the OKA Rules of Order. The Rules provide that the work of the Round Table is led by the President, who is responsible for scheduling the discussion of issues, appointing appropriate subject chairs, inviting experts and chairing discussions. For a meeting to be quorate, more than half of the members must be present. Decisions are made by simple majority voting. Based on the discussion and the final decisions made on controversial issues the Round Table issues a recommendation that sums up the major points of the given issue and offers a set of possible solutions that have been developed and approved by the Round Table. A recommendation is endorsed if it is backed by an absolute majority (more than half of all Round Table members).

Following prior consultation with experts, the President of OKA proposed that discussion papers presenting empirical facts and suggesting solutions should be produced in 11 subject groups. (Later on a twelfth subject group was added to this list.) The activities in each subject group were co-ordinated by the participant who had been appointed subject chair by the OKA President. Chairs were responsible for commissioning and evaluating background studies in their subject groups, for drawing up discussion papers and recommendations and for producing a concluding paper based on the results of the discussions, oral or written communications. Balázs Muraközy from the Institute of Economics of the Hungarian Academy of Sciences was appointed secretary by the OKA President. The secretary was responsible for co-ordinating the activities of subject chairs, organising OKA meetings and preparing memoranda based on the minutes and transcriptions of the meetings.

The subject groups endorsed by OKA and their chairs were the following:

1. Early years education (children aged 0–7 years) • *Mária Herczog*
2. Lower primary education (children aged 6–10 years) • *József Nagy*
3. The second stage of public education and school leaving examinations • *Benő Csapó*
4. Equality, desegregation • *Gábor Havas*

[10] Original Hungarian text: http://oktatas.magyarorszagholnap.hu/wiki/A_Kerekasztal.

5. Pupils with special educational needs • *Valéria Csépe*
6. Vocational training and training secondary school dropouts • *Ilona Liskó*
7. Educational science and course contents • *Benő Csapó*
8. Assessment, evaluation and accountability • *Gábor Kertesi*
9. Teacher education and continuing professional development • *Andrea Kárpáti*
10. Institutional system and funding structure in education • *Júlia Varga*
11. The effects of declining pupil numbers • *Judit Lannert*
12. Tools of employment policy • *János Köllő*

From the start of our project it was our aim to use the facts analyses and recommendations approved by the Round Table in each subject group to publish a Green Book outlining the tasks involved in the renewal of public education.

### The schedule, concerns and principles of writing the Volume

■ Stage One: producing and debating discussion papers

During the one and a half years of the project OKA held 18 meetings discussing the papers. In addition to OKA members, the discussions were attended by permanent guests from relevant state administration departments and meeting-specific guests with expertise in the relevant subject. The debates were voice-recorded, minutes were kept and memoranda were prepared. OKA meetings were open to the public, the materials discussed (discussion papers, written comments and the memoranda) can be found on the OKA website. The end of the first stage of OKA's activities was marked by a conference organised jointly with the Hungarian Pedagogical Association.[11]

■ Stage Two: writing and discussing individual chapters of the Green Book

Drawing on the experiences of the discussion meetings, written comments and the, by then, completed background studies, the earlier facts analyses and recommendations were revised and the chapters of the Green Book were written by the subject chairs. In December 2007 a brief preliminary facts analysis and recommendation package was produced at the request of the Prime Minister. The publication was commissioned to lay the foundations of education related measures of the action programme 'New Knowledge, New Awareness' announced in February 2008.[12] The recommendation package was discussed at three OKA meetings and the recommendations were passed by a majority.

Several arguments and counter arguments were voiced in discussing the recommendations. The details of critical comments and divergent views are available to read in the minutes of the meetings and transcriptions of the voice

[11] Conference materials can be found in Hungarian at http://oktatas.magyarorszagholnap.hu/wiki/Kategória:A_közoktatás_megújítása_Magyarországon_című_konferencia.

[12] http://oktatas.magyarorszagholnap.hu/images/Javaslatcsom.pdf

recordings. Written criticisms and responses to them are published on the internet together with the documents of discussion meetings. Most commentators agreed that the recommendation package was coherent and constituted a suitable foundation for a firm development programme. This, of course, does not only mean that measures can be introduced in the spirit of the recommendations but also that no decisions should be made in the opposite spirit and that policies should be consistent in giving priority to the issues contained in the recommendations in the allocation of resources.

▪ Stage Three: producing and discussing the final version of the Green Book

The President of OKA invited János Köllő and Júlia Varga to edit the chapters of the Volume. The final manuscript of the Volume was discussed at the OKA meeting of 18th June, 2008.[13] *The Green Book was approved with 19 votes in favour, one vote against, two abstentions and one vote in favour on the condition that minor corrections were made.* Tamás Bihall backs the contents of the Green Book on the whole but raises the objection that the chapter on vocational training does not place due emphasis on the importance of corporate internships and does not devote appropriate attention to the rapidly developing institution of employer funded studies. In his written comments György Horn assures the Round Table that he agrees with several ideas in the Volume and supports the implementation of most of the recommendations. He raises the objection, however, that several recommendations assume unrealistic conditions, with integration being a notable example, where — unfortunately — only very vague ideas of the means of implementation are available for the moment. Horn observes that the question of clearly manifest problems in social acceptance is not raised even though a society falls apart without integration and forced integration simply has the effect of accelerating this process. The commentator argues that the most pressing concern of the education reform is to maintain or raise the motivation of pupils and their families in every social group. He objects to the fact that the Volume does not address the question of motivation, whether it is present or absent or what could be done about the issue. A further shortcoming noted by Horn is that the challenges of pedagogical modernisation are not discussed; the Volume does not offer solutions to the problem of introducing modernisation into schoolwork taking into account the organisation of schools and the question of how — if at all — schools can adjust to changes.

The Green Book was presented to audiences at a conference organised by the Round Table on 25 November 2008.

[13] A summary of the discussion and comments submitted in writing can be read in Hungarian on the OKA web pages: http://oktatas.magyarorszagholnap.hu/wiki/Kategória:18._ülés.

### ■ Incorporating international experiences

In creating the Green Book every effort was made to incorporate international experiences of public education development. The green paper was translated into English and Jean-Paul Reef, education expert for the Luxembourg Ministry of Education, was invited to comment on the green paper and OKA's work plan. At our request Professor Reef gave a talk on the experiences of education reform in Germany.

A conference entitled 'Renewal of Education — Hungary's Future at Stake'[14] was organised with the participation of key experts involved in the planning, implementation and evaluation of the education reforms in Finland, Luxembourg, Germany, Canada, the United States, Greece, Cyprus and the United Kingdom. The aim of the conference was to familiarise Hungarian experts with international experiences and to discuss the position of education in Hungary.

The internationally recognised McKinsey & Co management consulting firm was invited to produce a Hungarian version of Michael Barber and Mona Mourshed's study entitled 'How the World's Best Performing School Systems Come Out on Top', the original version of which was financed by the firm. The conclusions of the study and their relevance to education in Hungary were discussed at a conference attended by Mona Mourshed.[15] Drawing on the analysis of education reforms in more than two dozen countries, the study finds that successful education systems share the features that by increasing the salaries of newly qualified teachers, introducing selective teacher training programmes, limiting student places and through various other measures they ensure that *1.* the most talented people are the ones who enrol in teacher training programmes, *2.* they develop into competent teachers as a result of their studies, and *3*. every child receives the best possible education service including children with learning difficulties. Efficient reforms have been especially successful in improving the achievements of pupils with below average performance. The conclusions of the study and the talks presented at the conference acted as an encouragement for the members of the Round Table to persist in their efforts and gave support to the approach we had been pursuing in seeking the basic goals and means of improving public education.

### ■ Reaching a consensus with the various players in education

Professional dialogue with representatives of the political sphere, interest groups and trade unions has been an integral part of our activities over the past one and a half years. The results of OKA's work have been disseminated at numerous professional meetings, conferences and workshops. OKA's members had talks

[14] An English summary of the conference is available at http://oktatas.magyarorszagholnap.hu/images/Szept3.pdf.

[15] http://oktatas.magyarorszagholnap.hu/wiki/Kategória:McKinsey_elemzés_a_legsikeresebb_oktatási_rendszerekről

with representatives of the Prime Minister's Office and the Hungarian National Development Agency, with members of parliamentary committees and professional organisations of parliamentary groups. Trade unions, professional chambers and associations were represented as permanent or meeting-specific guests or invited speakers and voiced their opinions at OKA meetings as well.

### ▪ Four key principles underlying the work of the Round Table

- Our goals were set high: it was conceded that the initial verdict concluding that Hungarian public education is in a very serious condition and that major long-term changes are needed to improve the efficiency of the system was correct.
- Both subject chairs and discussion participants pledged to accept nothing other than arguments based on the strictly scientific analyses of empirical evidence.
- Although the conditions of public education are closely related to several domains of society and the economy, every effort was made to focus on the most important aspects of the problem during the process of preparing the Green Book.
- It was acknowledged that problems could not be solved without recourse to measures seriously offending the interests of some groups. The task needs patience and perseverance and the consequences need to be weighed up. Finally, we need to be steadfast in our resolution and refuse to lower the minimum requirements of the necessary changes.

Let us take this opportunity to thank, in OKA's name, all the schoolteachers, university and college instructors, state administration and local government professionals and researchers, politicians and the representatives of trade unions and civil organisations who supported the work of the Round Table.[16]

We fondly remember and sorely miss our co-author, Ilona Liskó, whose tireless commitment to her role as chair of the subject "Vocational training and training secondary school dropouts" was a great asset to the Round Table and who has sadly passed away.

## ▪ AN OVERVIEW OF SUGGESTED PROGRAMMES

OKA has suggested changes in 12 different *areas of intervention* in public education and some related domains. The number of goals that the reforms are meant to achieve is, however, considerably smaller. Our recommendations are

[16] We are also grateful to the secretariat to the Round Tables of Tomorrow's Hungary for supplying the infrastructure needed for our work. We would further like to thank Zsuzsa Balabán, academic secretary of the Institute of Economics of the Hungarian Academy of Sciences, for her commitment and diligence in organising and co-ordinating the activities of OKA.

organised according to their area of intervention but let us first show the system of interconnections consolidating these recommendations into a package aimed at achieving the most important goals.

### Priorities

**1** Research outcomes and the unequivocal experiences of successful education reform programmes point to *measures enhancing the quality of teaching staff and consequently the social status of the teaching profession* as the most important component of improvement. It is this goal that must be kept in mind in distributing resources among institutions offering teacher training and professional development programmes and in developing policies affecting teacher employment. The path to this goal involves improving teachers' salary prospects but the usual, quickly depreciating, "teacher pay rises" and broadly applied, low value pay supplements are not the right solution. The experiences of countries with internationally outstanding education outcomes demonstrate that the primary factor in the endeavour to attract and retain highly competent young teachers is to offer salaries for newly qualified teachers which are comparable to other graduate salaries. It is therefore essential to improve the currently saliently poor relative income position of *newly qualified teachers* (which is considerably worse than that of experienced teachers). Furthermore, substantial improvement is needed in the salary prospects of teachers whose work involves more than average challenges or requires innovative approaches in order to guarantee quality education for pupils from disadvantaged backgrounds.

It is equally important to ensure that pre-service and in-service teacher training programmes teach *skills which earn higher prestige for the profession*, which is a goal that not every college or university is capable of attaining. The highly fragmented system of teacher education accommodates dozens of institutions where academic staff do not meet the standards (of research, publications and foreign language skills) expected of university teachers in other countries of the world. It is crucial to establish strong links between *research* and *teaching* — first, by giving greater responsibility in teacher education to research universities which are *measurably* recognised by the international scientific community and second, by taking every opportunity to involve teacher trainees in research aimed at enhancing teaching practice and at shedding light on concrete school failures and successes in present day Hungary.

If the lessons learnt from Hungarian and comparative international competence surveys are to have an impact on schools, it is not enough to complete the surveys and disseminate the methods of data collection and basic summary statistics of the results. This would be senseless wastefulness: the process of analysing the data demands comparable funds and much greater work effort (with the help of Ph.D. students, visiting scholars and teachers on research scholarships) relative to the process of data collection. Appropriate analyses,

evaluation and impact assessment are also needed to empower education advisors to recognise and adopt the innovations of the best teachers and to distinguish those from specious initiatives posing as innovations.

**2** Our second goal shall be to progress beyond the concept of school as an institution transmitting course contents. What is needed is an education programme that develops fundamental skills, views achievement differences between pupils as *different developmental phases* and educates everyone until a specific set of targets has been reached. Grade retention and the homogenisation of classes have proved to be unsuccessful measures in efforts to tackle the problem of underperformance; they cannot redeem the need to renew teaching culture. The consistent implementation of the reforms in 1 above is a prerequisite to the delivery of target-oriented education. Should this condition fail to be met, the tools of skills development (test packages, auxiliary materials) and the education methods which have been shown to be successful abroad and have been tried and scientifically tested in Hungary cannot reach schools or it will not be *these* that reach schools. Skills development on a mass scale cannot proceed without feedback, diagnostic assessment and evaluation. Investments are needed to create the infrastructural conditions for skills development (classrooms suitable for group work and computing facilities which are also useful for continuous feedback), and a relatively large lump-sum development grant is required to develop a diagnostic assessment system that tracks pupils' progress over time. It must be emphasised, however, that standardised assessment methods and modern tools of information technology complement and assist rather than replace autonomous teaching activities. A diagnostic assessment programme cannot survive unless all those concerned — pupils, teachers and parents — have confidence in the system. For this reason, the programme must not be used as a direct reference for penalisation or reward. A system of incentives should nevertheless be developed to encourage genuine achievements.

**3** The third goal is to *prevent the development of an uncloseable starting gap* and to progress beyond the practice of *segregation in response* to differences between pupils. This problem has been explored in great detail in our papers, which is justified by at least two observations. First, the Hungarian public education model is one of the most highly segregated systems in the developed world, which is the least successful model in moderating initial differences stemming from social inequalities. Among the countries participating in the PISA surveys Hungary was found to display the strongest effect of family background on pupil outcomes and Hungary was the country with the greatest variation in performance attributed to differences between schools. This is the combined effect of regulations on school enrolment, the exceedingly fragmented maintainer (local government) system and the failure of teaching methods to adjust to the growth of secondary education into an almost all-encompassing service where the natural homogenising filter of early exit, the practice of aban-

doning studies on a large scale is no longer operational. Second, in European countries where average pupil performance has been substantially improved (as in Poland) or raised to the highest level (as in Finland), the improvement is largely explained by a reduction in the extent of pupil selection.

Institutions involved in early years' child care and education fulfil an important function in preventing developmental disadvantages that emerge *before the age of compulsory education*. This also holds for currently less popular alternative child care arrangements as well as programmes and initiatives undertaking to improve parenting skills or to alleviate child poverty. What is now needed is to develop the health visitation network into a comprehensive service and to expand the nursery and infant care institution network and alternative early years' facilities to a substantial extent — multiplying the number of places in the long term. Kindergartens, which can admit children from the age of three years, are of special significance: they must be made *accessible to everyone* from the age of four years and to every child of poor and uneducated parents from the age of three. Regardless of the expected improvements in the capacity and quality of early years' education, provision must always be made for cases where effective help can only be offered by specially trained professionals. To ensure that help of this kind can be offered in time and that those in need can choose to make use of it, the information gathered by family doctors, health visitors and different child care institutions must be amalgamated and made accessible to families. As this is not possible under current conditions, we propose that the necessary changes be implemented.

The measures outlined in 1 and 2 above will effect clear improvement in the work of schools but segregation efforts may be expected even from competent and development-oriented teaching staff. To curb these efforts, a *desegregation programme* should be introduced and *education policies* should be revised. Our recommendations concerning desegregation target the reduction of segregation between schools and within schools, first by introducing appropriate regulations and a system of monitoring adherence to these regulations and second, by allocating special-purpose grants that must be accounted for. It is further proposed that methods of educating pupils from disadvantaged backgrounds should be part of the teacher training curriculum. The issue of professional diagnosis and services for children with *special educational needs* (SEN) is discussed in detail showing that failure to distinguish achievement difficulties of different kinds and the use of the SEN category as a means of securing additional funding work against the interests of not only children with special needs but also those who are wrongly categorised as having special educational needs when their difficulties in fact stem from social or family causes or teaching failures.

Developmental delay and segregation have acute consequences in *vocational training*. The labour market chances of people with vocational qualifications are very limited and this is not primarily explained by the contents of technical instruction but by the very poor quality of general skills which students

acquire at these schools. We suggest that part of the solution to the problem of reducing developmental delay would be giving priority to those models of Regional Integrated Vocational Training Centres (TISZK) which allow vocational training to be offered at the Training Centre itself while general skills are taught at secondary schools within commuting distance of the students' place of residence. This solution ensures that students carry out part of their studies at schools where the focus is on general skills development, teachers have appropriate competence in teaching methodology and the necessary subjects are offered. Since these secondary schools teach subjects both in preparation for academic secondary examinations (the *Matura*) and for vocational qualifications, they may eventually become models of a uniform comprehensive secondary school.

Our recommendations devote a separate chapter to the second stage of public education, to the problems that may currently prevent some students from attaining upper secondary qualifications, i.e., completing their *Matura* examinations. Students attending vocational schools are especially likely to interrupt their studies and drop out of the training programme. It is important to introduce measures preventing students from leaving early. These measures should not involve punishment but, instead, students at risk should be given individual support aimed at retaining them and additionally institutions characterised by high drop-out rates should be given assistance. To tackle the problem of dropping out of school, detailed information is needed on students who have dropped out. We therefore propose changes to the system of data collection. We find that the solution to the problem of reintegrating dropouts lies in encouraging the establishment of "second chance" type schemes and institutions, elaborating the conditions of claiming state funding for these initiatives, developing education methods and introducing student grants as incentives to completing training.

Half of first grade pupils with parents who left school at or before the age of 14 (some but not most of whom are Roma) live in families where nobody works. This is the reason why our Volume discusses measures of *employment policy* that are needed to reduce unemployment among parents and the effects of unemployment on the child — child poverty, underachievement at school and lack of motivation. The measures are aimed at increasing employment among that element of the population with less than upper secondary qualifications, especially people with only eight years of primary education or less.

4 It is important that the process of improving the work of schools and education should rest on an *appropriate feedback system*, i.e., individuals, schools and the education system as a whole should have access to feedback on their progress and on the quality of their work, and this feedback should be based on professionally gathered data and must be resistant to manipulation. It is essential for summary evaluation measurements and the planned diagnostic assessment procedures to conform to international standards. All those con-

cerned should receive direct feedback; evaluation should be the responsibility of knowledge centres equipped with appropriate competences in pedagogy, education science and mathematical statistics; services should be developed in response to the feedback; and anonymous data sets should be used for research. A feedback system is an important tool in strengthening the relationship between scientific research and teaching (Goal 1), in enabling teachers and pupils to keep track of the development of basic skills (Goal 2) and in identifying the locus, magnitude and sources of inequalities in the education system (Goal 3). To establish an appropriate feedback mechanism, *an inspection and mentor system should be set up* (modelled on the British Ofsted system) which, in addition to fulfilling a function of ensuring lawfulness, assesses school performance on a regular basis and monitors not only pupil achievements and school management but also the education policies of a school's local or micro-regional authorities, the implementation of these policies and differences in teaching conditions between schools within a given micro-region. The inspection authority should evaluate the results of the assessments and make recommendations of intervention in specific cases. We propose that the Hungarian Educational Agency should be given extended powers and should be supervised through a revised structure.

Although the new *Matura* was a significant step towards standardising the system of school leaving examinations, further development is needed. Recent changes in higher education and public education — the expansion of higher education and the introduction of the three-level (Bologna) system — call for further changes to school leaving examinations. The *Matura* must be a trustworthy measure of competence; it should reflect pupils' knowledge and skills in areas needed for personal development, participation in socio-cultural processes and further studies across a broader spectrum and in more detail than it now does. There is no longer a need, in contrast, for early specialisation or for the wide choice of examination subjects allowing specialisation. With the objective of consolidating the education of young generations (eliminating current imbalances) and to improve the student base of higher education courses in natural sciences and engineering, we propose that natural sciences should be a compulsory examination subject and the number of examination subjects should be radically reduced.

### Priorities and reform areas

We believe that the reforms proposed by OKA will yield their first results in about ten years' time provided that current and future governments remain tenacious and consistent in their observation of the proposed priorities. Some of the above steps can and must be taken immediately but it is crucial to *build on scientific analyses and pilot studies where needed* and to introduce these changes *with reference to the complete programme, in concord with other con-*

*current or planned steps*. If education related regulations or public expenditure are to be modified, policy makers — or a delegated body — should investigate the expected effects of each proposed measure on the programme as a whole. It must be taken into account that the proposed changes call for close co-operation between a number of authorities (the government departments for education, health, social affairs, labour, local administration and finance, the National Development Agency and its Managing Authority). Programme components that can be launched without delay are listed with their respective objectives in *Table I1* grouped according to intervention area. The table only presents a quick summary, see Chapters 1–12 for details of each intervention area.

### Costs, resources, sustainability

Most of the programmes that can be launched in the short term are related to the objectives set by the New Hungary Development Plan and to the priorities of the operative programmes. For this reason the initial implementation/development of these initiatives can be largely financed from the above sources. These sources, however, do not allow for a steady increase in spending needed for growth. A steady increase in running costs is expected in regions where there are a large number of children of poor and uneducated parents: the expansion of the health visitation network and the creation of more kindergarten places will increase running costs and the reform of teachers' pay schemes will require extra spending on the part of maintainers.

In the short term extra running costs can be covered by special-purpose, monitored grants. Our recommendations include measures aimed at making claims on public education funding transparent and reducing any illegitimate use to a minimum. Improved transparency, however, cannot make up for the increase in costs and the proliferation of funding entitlements that are expected to accompany the changes.

To ensure long-term sustainability, institutional and funding models need to be fundamentally revised. Our recommendations concerning this issue are discussed in a separate chapter. Some key elements of our programme cannot be realised unless the system of local administration is restructured. Our recommendations define a model of institution maintenance and funding which is based on the establishment of *micro-regional governments*, which is a solution that calls for amendments to government acts requiring a two-thirds majority. If the system of local administration cannot be reformed however, there is little realistic hope for important components of the programme to be sustainable. Since a substantial share of the reforms requires extra resources the last chapter of our Volume discusses estimations of potential savings due to demographic changes on the one hand, and improvements in the efficiency of public education on the other, which could be used to finance reforms without a need for additional central funding.

[TABLE I1]

PROGRAMMES THAT CAN BE LAUNCHED IN THE SHORT TERM IN THE INTERVENTION AREAS IDENTIFIED IN THE SUMMARY

| INTERVENTION DOMAIN | PRIORITY | | | | INVESTMENT, DEVELOPMENT | MAINTENANCE COST INCREASE | REGULATORY AMENDMENTS |
|---|---|---|---|---|---|---|---|
| | 1 Prestige of teaching profession | 2 Basic skills development | 3 Prevention of starting disadvantages | 4 Assessment, evaluation, mentoring | | | |
| SUPPORTING EARLY CHILDHOOD DEVELOPMENT | | | | | | | |
| Start planning a comprehensive health visitation system, including issues of travel support, pay schemes and work load, after taking stock on the district level | | | • | • | | • | |
| System of indicators: standardise indicators, ensure comprehensiveness, plan rules of procedures and data protection, develop information technology and form extra duty compensation procedures for the National Health Insurance Fund | | | • | • | • | • | |
| Expand *Sure Start*, training and professional development for staff | • | • | • | | • | | |
| Create the legal and financial conditions of expanding home-based childminding and family day care | | • | • | | | | |
| Make kindergartens accessible to all from the age of four | | • | • | | • | • | |
| Launch independent training programme on early childhood development, provide professional development programmes for current experts | • | • | • | | | | |
| TEACHER TRAINING | | | | | | | |
| Revise founding documents of master's programmes in teacher training | • | • | | | | | |
| Improve institutional accreditation conditions, define criteria specific to teacher training | • | • | | | | | |
| Develop a scheme of quality assurance in in-service training | • | | | • | | | |
| Plan the programme of one-semester school placement | • | • | • | | | • | |
| Define a grant scheme for teachers, senior teachers, mentors and subject advisors | • | | | • | | • | |

| INTERVENTION DOMAIN | PRIORITY | | | | INVESTMENT, DEVELOPMENT | MAINTENANCE COST INCREASE | REGULATORY AMENDMENTS |
|---|---|---|---|---|---|---|---|
| | 1 Prestige of teaching profession | 2 Basic skills development | 3 Prevention of starting disadvantages | 4 Assessment, evaluation, mentoring | | | |
| THE RENEWAL OF TEACHING CULTURE | | | | | | | |
| Extend the use of current diagnostic and development tools | | ● | ● | ● | | | |
| Disseminate methods encouraging meaningful learning | ● | ● | ● | | | | |
| Create the professional and material conditions for electronic (online) diagnostic assessment, start the development process | | ● | ● | ● | ● | | |
| Define, calibrate and parameterise tasks suited to follow progress (6–7 years, 3 years for testing purposes) | | ● | ● | ● | ● | | |
| EDUCATION SCIENCES | | | | | | | |
| Establish a Science Fund for educational research | | ● | | ● | ● | ● | |
| Create research universities with the strong presence of Ph.D. students, postdoctoral scholars and foreign researchers | ● | ● | | ● | ● | | |
| Priorities in allocating resources: scientific achievements as measured by internationally accepted indicators, large and long-term projects, long-term co-operation with a greater number of schools, participation in pre-service and in-service teacher training, involvement of trainee teachers | ● | ● | | ● | | | |
| ASSESSMENT AND EVALUATION | | | | | | | |
| Centrally process all comprehensive competence tests in grades 6, 8 and 10 | | | ● | ● | | ● | |
| Store student identification numbers for longitudinal assessment (in progress) | | | ● | ● | | | |
| Start developing assessment tools for pupils with special educational needs (SEN) (by 2010) | | | ● | ● | ● | | |
| Increase number of assessment supervisors | | | | ● | | ● | |
| Expand to new competence areas (pilot) | | | ● | ● | | | |
| Regulate compulsory completion of background questionnaires at schools | | | | ● | | | |
| Analyse the possibility of setting subgroup specific standards for children of poor and uneducated parents | | | ● | | | | |
| Improve the *Matura* system | | | | ● | ● | | ● |

[TABLE I1 – continued]

PROGRAMMES THAT CAN BE LAUNCHED IN THE SHORT TERM IN THE INTERVENTION AREAS IDENTIFIED IN THE SUMMARY

| INTERVENTION DOMAIN | PRIORITY | | | | INVESTMENT, DEVELOPMENT | MAINTENANCE COST INCREASE | REGULATORY AMENDMENTS |
|---|---|---|---|---|---|---|---|
| | 1 Prestige of teaching profession | 2 Basic skills development | 3 Prevention of starting disadvantages | 4 Assessment, evaluation, mentoring | | | |
| Set up knowledge centres to interpret test data | • | | | • | • | • | |
| Test performance incentive schemes at local level, with voluntary participation | • | | | • | • | | |
| EQUALITY, DESEGREGATION | | | | | | | |
| Improve identification procedure of children of poor and uneducated parents | | | • | • | | | • |
| Give kindergarten access for children of poor and uneducated parents from the age of three | | • | • | | • | • | |
| Decrease segregation at school entry | | • | • | | | | |
| Decrease all forms of segregation in multi-school settlements and at schools with more than one class in each grade | | • | • | | | | • |
| Restrict the practice of subsidising enrolment from outside school districts from public funds | | | • | | | | • |
| Reform teacher pay schemes, introduce performance related pay, introduce salary supplements to reward special achievements and extra challenges | • | | | • | | | • |
| Define clear regulations concerning the conditions of closing small schools and primary schools with only four grades | | | • | | | • | • |
| Prepare trainee teachers for teaching children of poor and uneducated parents | • | • | • | | | • | |
| Create the conditions of successful secondary education for children of poor and uneducated parents | • | • | • | | • | • | |
| Implement complex programmes in underdeveloped and segregated areas | | | • | | • | • | |
| Set the rules of subsidising with regard to equality | | | • | | | • | |

| INTERVENTION DOMAIN | PRIORITY | | | | INVESTMENT, DEVELOPMENT | MAINTENANCE COST INCREASE | REGULATORY AMENDMENTS |
|---|---|---|---|---|---|---|---|
| | 1 Prestige of teaching profession | 2 Basic skills development | 3 Prevention of starting disadvantages | 4 Assessment, evaluation, mentoring | | | |
| VOCATIONAL TRAINING, DROPOUTS | | | | | | | |
| Divide vocational schools into vocational training centres and secondary schools | | • | | | • | | • |
| Compensate for disadvantages at secondary schools preparing for vocational training | | • | • | | | • | |
| Reintegrate dropouts | | • | • | | • | • | |
| Record causes of terminating student status in the central data collection system | | | | • | | | • |
| TOOLS OF EMPLOYMENT POLICY | | | | | | | |
| Reform minimum wage policy | | | • | | | | |
| Discourage disability pension claims motivated by poor employment prospects | | | • | | | | |
| Reform local welfare system | | | • | | | | |
| Reduce disadvantage of people without maturity certificate in participating in retraining programmes | | | • | | | • | |
| Develop comprehensive, exceptional crisis management programmes to tackle acute local crises | | | • | | • | • | |
| Overhaul the system of employment subventions | | | • | | | | |
| SYSTEM OF INSTITUTIONS, FUNDING | | | | | | | |
| Restructure teacher pay schemes, gradually raise the salaries of newly qualified teachers, recompense for extra challenges | | • | | | | • | • |
| Set up comprehensive central inspection system modelled on the British Ofsted | | | | • | • | | • |
| Conduct comprehensive assessment of all schools every 3 or 4 years | | | | • | | • | |
| Implement a system of claiming and accounting for per-pupil subsidies through the pupil-level database of the Public Education Information Office (KIR) based on education identification numbers | | | | • | | | • |
| Record the causes of terminating student status together with year of study and gender in the central data collection system | | | • | • | | | • |

## [APPENDIX I1] MEMBERS OF THE ROUND TABLE FOR EDUCATION AND CHILD OPPORTUNITIES

| | NAME | AFFILIATION, POSITION | DELEGATING BODY |
|---|---|---|---|
| PRESIDENT | KÁROLY FAZEKAS | Institute of Economics, Hungarian Academy of Sciences, Director | The Prime Minister |
| MEMBERS | GYÖRGY ÁDÁM | ELTE University of Budapest, Professor Emeritus | Hungarian Pedagogical Association |
| | ANTAL ÁROK | Teachers' Trade Union, Vice President, Editor in Chief, Pedagógusok Lapja (Teachers's Quarterly) | Council for Economic and Social Affairs, employee wing |
| | ERZSÉBET M. ESZTER BAJZÁK | Catholic Educational Agency and In-Service Training Institute, Head of Institute | Hungarian Catholic Episcopal Conference |
| | TAMÁS BIHALL | Hungarian Chamber of Commerce and Industry, Vice President; B-A-Z County Chamber of Commerce and Industry, President | Council for Economic and Social Affairs, employer wing |
| | BENŐ CSAPÓ | Institute of Education, University of Szeged, Professor | Hungarian Academy of Sciences |
| | VALÉRIA CSÉPE | Institute of Psychology, Hungarian Academy of Sciences (HAS), Research Professor, Corresponding Member of HAS; Hungarian Academy of Sciences, Deputy Secretary General | Hungarian Psychological Association |
| | ELEMÉR HANKISS | ELTE University of Budapest, Professor | Council for Economic and Social Affairs, employer wing |
| | GÁBOR HAVAS | Institute of Sociology, Hungarian Academy of Sciences, Senior Research Fellow | Parliamentary Committee for Youth, Social and Family Affairs |
| | MÁRIA HERCZOG | Károly Eszterházy College, Associate Professor | Council for Economic and Social Affairs, civil wing – Hungarian Economic and Social Council |
| | GYÖRGY HORN | Alternative Secondary School of Economics, Teaching Advisor | The Prime Minister |
| | ANDREA KÁRPÁTI | Centre for Multimedia and Educational Technology, ELTE University of Budapest, Professor | Parliamentary Committee for Youth, Social and Family Affairs |
| | GÁBOR KERTESI | Institute of Economics, Hungarian Academy of Sciences, Professor | The Prime Minister |
| | JÁNOS KÖLLŐ | Institute of Economics, Hungarian Academy of Sciences, Senior Research Fellow | Council for Economic and Social Affairs, employee wing |
| | JUDIT LANNERT | Tárki–Tudok Ltd. Centre for Knowledge Management and Educational Research, General Manager | Parliamentary Committee for Education and Science |
| | † ILONA LISKÓ | Institute for Educational Research and Development, Senior Research Fellow | Hungarian Sociological Association |
| | JÓZSEF NAGY | Institute of Education, University of Szeged, Professor Emeritus | Hungarian Academy of Sciences |
| | MARGIT ROMÁN, MRS. NAGY | Centre for Integrated Regional Vocational Training, Nyírvidék Region, Manager | Parliamentary Committee for Budget, Finance and Audit |
| | ISTVÁN NAHALKA | Institute of Education, ELTE University of Budapest, Associate Professor | Parliamentary Committee for Education and Science |
| | MAGDA RÉVÉSZ | FIOKA Child and Youth Welfare Service, director | Association of Social Workers |
| | BALÁZS TÖLLI | Berzsenyi Dániel Lutheran Secondary School, Headmaster | The Evangelical-Lutheran Church in Hungary |
| | JÚLIA VARGA | Corvinus University of Budapest, Institute of Economics, Hungarian Academy of Sciences, Professor | The Prime Minister |
| | LÁSZLÓ VASA | Szent István University, Associate Professor | Parliamentary Committee for Budget, Finance and Audit |

## [APPENDIX I2] EVENTS LISTING FOR THE ROUND TABLE FOR EDUCATION AND CHILD OPPORTUNITIES (OKA)

| | AGENDA/EVENT/CONFERENCE | DATE |
|---|---|---|
| 1. | OPENING MEETING<br>1. Objectives, the rule of order and the work plan<br>2. Opening remarks by Károly Fazekas, Gábor Kertesi, János Köllő and Júlia Varga | 20 March 2007 |
| 2. | MÁRIA HERCZOG • Early years development | 3 April 2007 |
| 3. | BENŐ CSAPÓ • The scientific foundations of education reform | 17 April 2007 |
| 4. | GÁBOR HAVAS • Equality, desegregation | 2 May 2007 |
| 5. | GÁBOR KERTESI • Assessment, evaluation and accountability | 15 May 2007 |
| 6. | VALÉRIA CSÉPE • Pupils with special educational needs | 29 May 2007 |
| | WORKSHOP with Jean Paul Reeff on the German education reform | 29 May 2007 |
| 7. | ILONA LISKÓ • Vocational training and training for secondary school dropouts | 13 June 2007 |
| 8. | JÓZSEF NAGY • The first years of primary school | 26 June 2007 |
| 9. | JÁNOS KÖLLŐ • Measure of employment policy | 10 July 2007 |
| 10. | ANDREA KÁRPÁTI • Teacher education | 10 July 2007 |
| | International conference: RENEWAL OF EDUCATION – HUNGARY'S FUTURE AT STAKE. Participants: Philip Adey (King´s College, London), Cordula Artelt (University Bamberg), Jürgen Baumert (Max Planck Institute for Human Development, Berlin), Jarkko Hautamäki (Helsinki University), Suzanne Hidi (University of Toronto), Erno Lehtinen (University of Turku), Jari-Erik Nurmi (University of Jyväskylä), Jean-Paul Reeff (ICHINI), Lauren Resnick (University of Pittsburgh), Roger Säljö (Göteborg University), Patrik Scheinin (University of Helsinki), Stella Vosniadou (University of Athens). | 3 September 2007 |
| 11. | JÚLIA VARGA • Institutional structure and funding in education | 4 September 2007 |
| 12. | JUDIT LANNERT • The budgetary effects of declining pupil numbers | 4 September 2007 |
| | Joint conference with the Hungarian Pedagogical Association and the Seventh Congress on Education Policy: THE RENEWAL OF PUBLIC EDUCATION IN HUNGARY | 25 September 2007 |
| | WORKSHOP with Olaf Köller (Institute for Educational Progress, Humboldt University, Berlin). Presentation: Developing a National Assessment System in Germany | 24 October 2007 |
| 13. | 1. Proposal by Károly Fazekas for the OKA work plan for the next six months<br>2. János Köllő's talk on the first part of the recommendation package concerning public education policy<br>3. Andrea Kárpáti's report on the progress of state administration talks concerning teacher training<br>4. Júlia Varga's report on the progress of the working group planning the amendments to the Local Government Act | 30 October 2007 |
| 14. | 1. Expert's talk on guarantees of the right of access to primary education<br>2. Discussion of the first part of the recommendation package concerning public education policy | 20 November 2007 |
| 15. | Discussion of the second part of the recommendation package concerning public education policy | 11 December 2007 |
| 16. | Discussion of OKA's recommendations concerning SEN | 22 January 2008 |
| | Conference introducing the McKinsey report HOW THE WORLD'S BEST PERFORMING SCHOOL SYSTEMS COME OUT ON TOP | 25 January 2008 |
| 17. | 1. Discussion of recommendations concerning teacher training<br>2. BENŐ CSAPÓ • The second stage of public education and school leaving examinations | 18 March 2008 |
| 18. | DISCUSSION OF THE GREEN BOOK | 18 June 2008 |
| | CONFERENCE INTRODUCING THE GREEN BOOK | 25 November 2008 |

Meeting materials and conference papers are available for download from the OKA website: http://oktatas.magyarorszagholnap.hu/wiki/A_Kerekasztal.

# I. THE RENEWAL OF PUBLIC EDUCATION

# 1 Encouraging early child development

[Mária Herczog]

## ■ BACKGROUND

"The first years last forever." The adage reminds us that health, well-being, social skills, the ability to co-operate, the will and aptitude for discovery and learning are to a great extent determined by the quality of care and education in the first years of life. Essential cognitive, emotional and social competences develop during this period, which can only be built upon through special efforts — and usually less than fully — at a later stage. In present day Hungary, 20 per cent of children entering the school system are at a disadvantage difficult to compensate for. While schools can do a great deal to stop this initial handicap from leading to serious failures and to ensure that these children do not drop out of school, it is the period of life before school, especially the first three years, which are of crucial significance in *preventing* this situation.

While schools can do a great deal to tackle underachievement due to an initial disadvantage, it is the first six (especially the first three) years that are crucial for efficient prevention.

The fact that parents lack the appropriate knowledge and skills at the time of starting a family and in the period following is — among many other factors — a fundamental determinant of social marginalization and isolation, failures at school and the subsequent generation problems. Rather than being driven by natural instincts only, parenting, motherhood and skills are primarily acquired: parenthood, the developmental needs of the child and the appropriate ways to respond to these needs must be learnt and the most successful methods identified. While several generations of children were reared and educated in the same way in the past, with an unchanging set of goals, values and methods in their upbringing, the conditions have fundamentally altered over the past 50–100 years. The causes include shifts in the demands of formal education and the labour market as well as a new family structure: *we no longer have an extended family system or a large number of children.* People with low levels of education, those living in difficult social circumstances or in social isolation, those struggling with mental problems or disabilities and those out of work are in a particularly difficult situation but *those people with a higher social status are not immune to problems* either — this is therefore an issue for society as a whole.

Rather than being driven by natural instincts, parenting, motherhood disposition and skills are primarily acquired; the ways to meet the developmental needs of a child must be learnt.

As expressed in a Communication by the European Commission: "Child poverty results from a complex interaction between these factors. The best outcomes tend to be achieved by countries addressing the issue on all fronts and striking an appropriate balance between targeting the family and targeting the child in its own right. This entails combining strategies to increase

parents' access and attachment to employment with enabling services and with income support that minimise the risk of creating trap effects. Success requires these measures to form a well-balanced policy mix — focused on early intervention, adequately resourced and underpinned by clear objectives and targets." (COM, 2008).

The fact that early childhood has been a neglected and underappreciated period up until now presents a problem at all levels of childcare professional training and its relevant sectors. There are historical reasons for this: the significance of developmental psychology and family and maternal care was not recognised for two decades (in the 1950s and 1960s) and the issue has only received marked attention in the past one and a half decades thanks to research results — especially the visually perceptible outcomes of neurobiological studies (*Table 1.1*). These results indicate that initially pregnancy and childbirth followed by the early critical period, especially the first three years, elementally determine children's social integration, their skills and abilities and their behaviour later in life. This holds true for both emotional and cognitive development. The child's development is dependent on the quality of emotional stimulation, talking, play and care activities, where *the knowledge and skills of the primary caregiver — usually the mother — and those providing or helping with day care are of crucial significance.* In Hungary, the existing institutional network — from health visitation through to day care facilities — constitutes a sound foundation for professional help provision but is in need of restructuring and development in several respects. In addition to reinforcing existing programmes, an integrated and collaborative system of schemes, provisions and services should be developed with the objective of ensuring that each and every child has access to services appropriate to his or her age, personal and cognitive development and family background and which will encourage the child's optimal growth and development in a secure and caring environment.

In the first instance pregnancy and childbirth followed by the first three years of life elementally determine the child's social integration, skills and abilities and behaviour.

The past two decades have seen a striking rise in international attention devoted to this issue. A large number of research studies have been conducted in developed and developing countries, which have led to several action and intervention proposals. The research paper by ENGLE ET AL. (2007) on early childhood development as a global challenge is an especially important publication in this area. While the study cannot compensate for the lack of Hungarian research results, Hungarian professionals will also find the authors' conclusions instructive. In the developed world, most of the relevant research has been conducted in the United States with results which are convincing but unfortunately little known in Hungary.[1] It is clear from the partly differing experiences of developed and developing countries, however, that the basic questions and the answers to them are the same. The only viable solutions are those that consider the problem as a whole, build on a co-operation between

[1] A good overview of relevant research can be found at http://www.promisingpractices.net/research.asp.

[TABLE 1.1] RISK FACTORS AND DEVELOPMENTAL OUTCOMES – A SUMMARY OF RECENT STUDIES

| RISK FACTOR | SOCIAL/EMOTIONAL OUTCOME | COGNITIVE OUTCOME |
|---|---|---|
| Neurodevelopmental risk | | |
| Low birthweight/prematurity | Behaviour problems | Learning disabilities, poor performance |
| Abnormal neurodevelopment | Behaviour problems | |
| Abnormal skull/mid-face development | Behaviour problems | |
| Metabolic abnormality | Motor co-ordination problems | Grade retention, lower IQ, school failure |
| Cognitive deficits | | |
| Low IQ, poor verbal skills | Delinquency, antisocial behaviour | Lack of school success, negative attitude |
| Absence of special education in preschool | | Difficult transition to elementary school |
| Early behaviours/relationships | | |
| Difficult temperament | Antisocial behaviour, delinquency | School failure |
| Hyperactivity/externalizing behaviour | | Difficulty adjusting to school, lower IQ |
| Insecure attachment | Behaviour problems | |
| Family, parent characteristics | | |
| Low maternal educational attainment | Behaviour problems | Early school failure |
| Divorce, family disruption | Behaviour problems | |
| Parental substance abuse (alcohol, drugs) | | Delayed development, lower intelligence |
| Maternal depression | Behaviour problems | Cognitive delays |
| Low socio-economic status | Behaviour problems | Lower IQ, delayed development School failures |
| Immigrant status | Psychosocial problems, risk taking | |
| Parenting practices | | |
| Coercive discipline/harsh punishment | Antisocial behaviour | |
| Maltreatment | Lower perceived social acceptance | Lower IQ/test scores, grade repetition |
| Inconsistent/erratic limits and routines | Antisocial behaviour | |

[SOURCE] HUFFMAN & MEHLINGER (1998).

the different sectors, professionals and institutions involved, embrace unified professional principles and methodology and rely on research results and relevant practices. The most important risk and protection factors as well as the necessary measures following from them are known and unequivocal (see *Figure F1.1.* "Pathways to school readiness" in the *Appendix*).

Relationship between women's labour supply, employment policy, maternal and family care and child development in the early years

Several associations can be found between women's labour supply, employment policy, maternal and family care on the one hand and child development in the early years on the other. It must be noted, however, that the different goals of investigation should not be confused: important though employment and women's labour supply may undoubtedly be, it would be ill-advised to argue in favour of institutional day care on that basis in the face of the message of the past decades, which has now reached the general public and become widely accepted.

In Hungary no research has been undertaken.

In Hungary no research has been undertaken and there are as yet no Hungarian publications investigating different aspects of the issue: how much women and family members really know about the needs of a child, about the ways and opportunities of acquiring child rearing skills and about the effects of the quality and quantity of day and home care on the child. We do not know to what extent families make informed decisions, what sort of information they rely on or how much importance they attribute to the actual or presumed interests of the child. Nor do we have any information as to what kind of relevant knowledge professionals or policy makers have. Unfortunately, for Hungary we do not even have any data on the effects of the various solutions on children in different social groups, living in different regions of the country, in families with different educational or income levels, different lifestyles and following different child rearing traditions.

This job must be done before any reforms can be planned. International studies only offer partial results and each result indicates that further, more extensive research is needed.[2] With respect to the child's needs, the optimum length of parental leave following childbirth, the optimum timing of return to work, essentially depends on the capability of the primary caregiver — usually the mother — to meet the child's needs during the period spent with the child, on the quality of day care, the responsiveness of the caregiver to the child's needs and the amount of time the child spends in day care relative to his or her age and needs. International research and programmes attribute increasingly more importance to a comprehensive approach to this issue. Empirical evidence is sought to establish the optimum form, duration and quality of care for young children in an effort to allow mothers to enter employment while securing the optimum conditions of development for the child.[3]

[2] For a — far from comprehensive — Hungarian summary of the international literature see BENEDEK (2007), BLASKÓ (2008), BÁLINT & KÖLLŐ (2008).

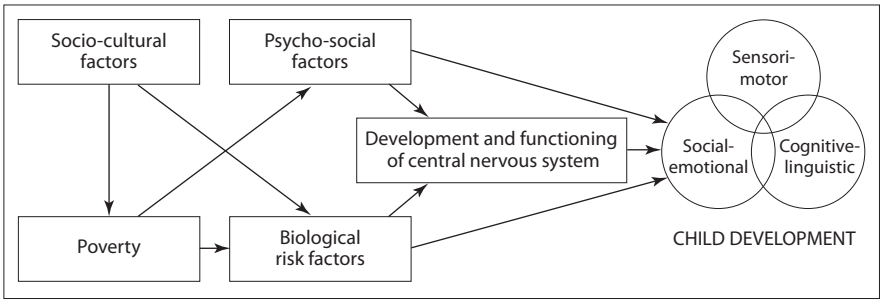
[3] The programme created by the Welsh National Assembly and its precursor studies (MELHUISH, 2004) are a good example.

## ■ DIAGNOSIS

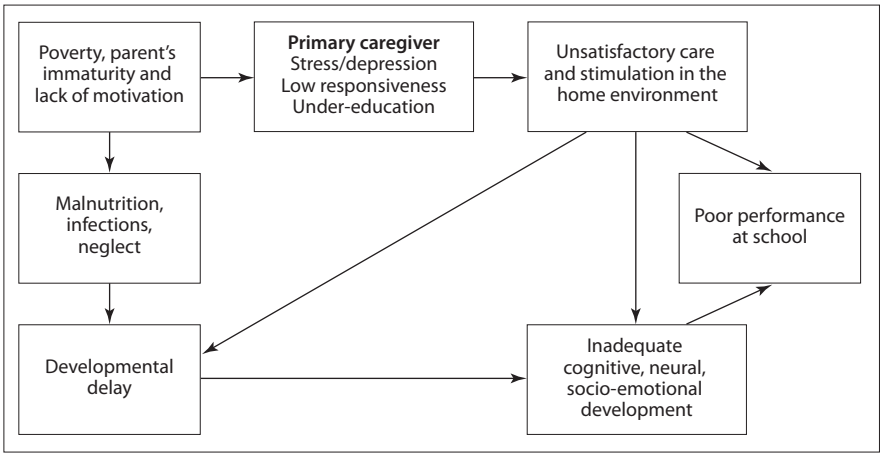
The fact that professionals or institutions do not respond, or do not adequately respond, to children's needs and where at the same time no satisfactory support is given to parents is the cause of children's school failures and difficulties in social integration.

1. The care of children before the commencement of school (0–6 years in Hungary) is regulated through the professional/institutional sector and other types of — converging or conflicting — interests. An approach where solutions are sought independently by health, education, and social and child protection services as well as by local governments has no chance of success in delivering a comprehensive, holistic child care, early education and family support programme. The fact that professionals or institutions do not respond, or do not adequately respond, to children's needs and where at the same time no satisfactory support is given to parents in fulfilling the task of child care contributes a great deal to children's school failures and their difficulties in social integration at a later stage (*Figures 1.1 and 1.2*).

[FIGURE 1.1]
Determinants and risk factors of early child development




[FIGURE 1.2]
Causes related to poor performance at school




2. The main focus of the Hungarian family support system is cash transfers which help mothers to stay at home. This has not only positive but also several negative effects with respect to the issue under discussion. Women (parents, caregivers) and their children have very little or no access to regular community activities — there are hardly any opportunities to join play groups or become

involved in institutional day care programmes, where some of their time could be spent on activities encouraging the child's development whilst improving their own parenting skills. It is an unfortunate fact that this kind of activity is not valued in Hungary, there is not a high level of demand for it. While there is general agreement that the quality of day care has a significant impact on early child development, no services of this kind are supported or offered to attract mother-child joint activites besides some private, paid provisions. There are major differences of opinion, however, as to the age threshold above which day care outside the home will not have adverse effects on the emotional development or attachment of the child. This threshold in the literature is estimated to be one to one and half years of age. The availability of flexible working hours or part time employment, and day care facilities appropriate for the child's needs would be a significant step towards achieving the goals desired.[4]

Flexible working hours or part time employment and day care facilities appropriate for a child's needs can help achieve the desired effects.

3. *Health visitation* services could be a way to ensure that parents receive adequate information, that the circumstances of the child are assessed and that further steps can be taken as needed. Current rules and regulations consider health visitation to be comprehensive but in actual fact this is not the case. It is the responsibility of local governments to provide these services and in some cases they fail to do so. There could be several reasons for this: default of the regulations, lack of resources, bad regulations or lack of financial incentives.

Health visitor services are not comprehensive.

Several health visitor districts cover geographical areas which are simply too large and *district health visitors lack access to appropriate transport*. A health visitor may be required to attend *an overly large number of families, which leads to a decline in the quality of service* (the standard requirement is 250 families per health visitor). There are 3,144 autonomous settlements (excluding Budapest) in Hungary, 1,730 of which maintain at least 1 health visitor position. In 2006 there were a total of 4,042 health visitor positions in Hungary, 3,808 (94.2 per cent) of which were filled. 102 health visitors worked as contracted businesses, 918 people (95.9 per cent) were employed as school nurses, less than a 100 people were hospital based health visitors and there were 108 health visitors to the 113 family planning service places. 3,143 (78 per cent) of all health visitors were assigned to a single settlement and 64 people were responsible for five or more settlements. The question of absence cover was adequately addressed in 516 (12.8 per cent) of the health visitor districts, the majority of which needed long-term cover (BALOGH & REMETE, 2008). As no reliable, systematic measurements are available on the probability of these problems in each

The geographical areas covered by health visitor districts are too large and health visitors have no access to appropriate transport. Health visitors are required to attend to an overly large number of families, which leads to a decline in the quality of service.

[4] As will be discussed in the next chapter, the current system has the effect of greatly reducing employment. While the labour market activity of Hungarian women — in contrast to men — does not deviate significantly from the EU or the OECD averages, the Hungarian figure characterising mothers with young children is the lowest among all OECD countries. The Hungarian birth rate remains similarly low notwithstanding the various measures of the past decades aimed at encouraging childbirth, even though the two main maternity benefit schemes (gyed and gyes) are exceptionally generous by international comparison.

of the 4,570 individual districts, the shortcomings of the service are difficult to eliminate in an effort to secure truly comprehensive services.

Laws and rules regulating health visitation (as well as midwifery, obstetric and paediatric) services specify a large number of *compulsory assessments* relating to the course of pregnancy, childbirth and the physical, mental and environmental condition of the child at different stages of life. As a result of the unavailability of a synchronized computerized system, however, the data recorded in different periods or by different institutions or professionals remains isolated; a large part of the information becomes lost or cannot be used and does not reach either the families in any coherent form or the professionals involved in the child's care (paediatrician, family physician, health visitor) in a suitably processed form that could be linked to an intervention protocol.[5]

Data recorded in different periods or by different institutions of professionals remains isolated; a large part of the information becomes lost and does not reach either the families or the professionals involved.

There has been a decline in the number of nursery schools since the early 1990s and few new places are created nothwithstanding changes in legal regulations.

4. There has been a substantial decline in the number of *day nurseries* (state-funded day care facilities for children under 3) since the early 1990s, which is explained partly by ideological and partly by financial reasons. Compared to the earlier figure of 15 per cent, there are now nursery school places for only 8 per cent of children under the age of 3 and few new places are created notwithstanding changes in the legal regulations. In fact, the current conditions applying to nursery schools run by local governments are unfavourable to settlements with populations below a certain size due to the high costs of their establishment and maintenance compared to kindergartens, which care for children aged 3-6. (As will be discussed in *Chapter 11*, with the loss of tax revenue due to passive provisions taken into consideration, the net costs burdening the budget are substantially lower.)

The family day care network as an alternative child care facility is similarly slow to expand.

The *family day care*[6] network, as an alternative child care facility, is similarly slow to expand, which is explained partly by the fact that it is a non-traditional, little known form of day care and partly by poor central financial support and a lack of motivation on the part of individuals and local governments. Family day care centres are subject to the regulations specified in Act XXXI of 1997,[7] which replace the earlier regulations of 1993. The Act defines family day care as a facility providing children raised in a family environment with daytime supervision, care, non-institutional education, nutrition and activities appropriate for their age. Family day care may be attended by children who do not receive nursery school or kindergarten care, schoolchildren after school hours,

[5] A different kind of assessment is proposed in the recent study *Gyermekszámlálás* [Childcount] (TORNAI, 2007). It would be well worthwhile to reach an agreement on this issue to avoid launching parallel research projects that may debase each other and thus once again stand in the way of creating a coherent assessment and evaluation system.

[6] A rich portrayal of the workings and problems of family day care facilities can be found in Hungarian on the website of the Hungarian Family Day Care Association (http://csana-info.hu).

[7] Act XXXI of 1997 and Decree 15/1998 (30.04) on Child Protection and Care Administration on the duties and operating conditions of child welfare and child protection institutions and individuals providing personal care.

especially those who do not attend state-funded after school programs or facilities, and children with disabilities, whose special needs must be catered for by the family day care service. A family day care centre may be run in the home of the caregiver or in some other — special purpose — facility. The centre may admit children aged five months to 14 years and care is always given in small groups. At most five children may attend including the caregiver's own children under the age of 14 if they do not attend some other day care facility. If one of the children at the centre is disabled, there can be at most 4 children in the group and if solely children with disability (or children with special needs) are being cared for, no more than 3 may attend the facility. Under exceptional circumstances special permission may be given to admit two additional healthy children or one additional child with special needs on condition that the caregiver has a permanent helper who attends to auxiliary tasks.

While relatively new in Hungary, this type of day care has a tradition that goes back several decades in Western Europe and North America. The Hungarian system has been adapted from the British model. For reasons mostly to do with government policies, private or family-based day care could not previously become common practice anywhere in Hungary, including regions where there was a great need for the facility because of a scarcity of nursery places or for children with disabilities or other kinds of special needs. Several objections to family day care have been voiced. The main argument against them is that, in contrast to facilities run by local governments with professional carers, there is no way of ensuring a consistently high quality of care in a non-institutionalized facility run by people lacking qualifications and experience. There are a number of counter arguments, however. The quality of care also varies between professional-run nursery schools and kindergartens in Hungary, as there are rather large differences in approaches, quality of professionalism, admission policies and care practices. Qualifications and local government supervision do not provide any guarantees in themselves. Regular professional evaluation, quality control, the measurement of customer satisfaction and professional training and development have an important function with regard to family day care centres — as well as any other service or institution, regardless of its type. An argument in favour of family day care facilities is that their size and character allows them to function with more flexibility than larger institutions, making them a viable alternative in small settlements or where special requirements need to be met. In addition to meeting children's needs, they may be flexible enough to take parents' working hours or other commitments into consideration (such as three-shift work or irregular working hours, etc.).

Family day care centres may be flexible enough to take parents' working hours and commitments into consideration.

5. In several respects *kindergartens* are of special significance and quality in Hungary. The remarkably extensive state-funded kindergarten network caters for 85 per cent of children between the ages of 3 and 6. The problem here is (as will be discussed in the chapters on desegregation in the current volume) that some of the children in the greatest need of pre-school education do not

Kindergartens are of special significance and quality in Hungary. Despite the availability of a remarkably extensive kindergarten network, some of the children in the greatest need of pre-school education do not attend kindergartens and do no receive the support appropriate for their age.

have access to kindergartens at all or not before the age of 5, and those who finally do join a kindergarten do not necessarily receive the help and support appropriate for their age and development. (PIK, 2003; HAVAS, 2007; SZABÓ & TÓTH, 2007).

Child welfare services achieve very limited success in meeting the targets set for them.

6. *Child welfare services* provide preventative and support services in the home in accordance with child protection legislation but at present they tend to achieve very limited success in meeting the targets set for them. Their child protection activities focus on post-incident emergency "fire fighting" and *ad hoc* intervention. By the time they first meet the children and their families, the children can usually be regarded as being at risk and in need of protection. A social provision network supporting *families* in their various activities, dealing with problems and causes rather than symptoms and taking specifically planned preventative action has barely been developed, whether it be children, sick or elderly family members who are in need of help.

7. The helping professions in a broad sense — health visitors, paediatricians, nursery, kindergarten and school teachers and social workers — are largely or exclusively female professions with typically low prestige and low wages. This fact is unfortunately indicative of the level of priority or concern given to the area and the problems associated with it.

Programmes to support early child development

Opportunities for Children (Gyermekesély)

Let Children Have a Better Life (Legyen jobb a gyermekeknek!)

8. A number of programmes have recently been launched to support early childhood development. As part of a long-term programme aimed at fighting child poverty under the direction of Zsuzsa Ferge, field work is carried out in an attempt to characterize the situation and improve certain conditions in a disadvantaged micro-region (Szécsény).[8] The "Flagship" Programmes developed in the framework of the Second National Development Plan integrate the Opportunities for Children (Gyermekesély) programme into school schemes run under the supervision of the Ministry of Education, the success of which is greatly dependent on the availability of solutions to the problems discussed above and on the willingness and ability of all departments involved to collaborate. Parliament Resolution 47/2007 (31.05) entitled 'Let Children Have a Better Life' (Legyen jobb a gyermekeknek!) signals the need for a change in attitudes and a new way of approaching the issue, and, by setting the most important targets, prepares the ground for the new programme in this vein.

[8] See http://www.gyermekszegenyseg.hu.

## ■ SUGGESTIONS

An overview of experiences of early years' development programmes, from ENGLE ET AL. (2007), is given in Part 2 of the *Appendix*. Our suggestions bear the conclusions of these experiences in mind but our focus is, of course, on the unresolved problems of the Hungarian support system.

1. The key to a successful solution is a programme which embraces a holistic approach, is based on the child's developmental needs and rights, views parents as well as every related discipline and institution as a partner and makes a point of measuring and evaluating developmental results at the level of individual children and groups of children (local, institutional, regional, etc.).[9]

Comprehensive health visitor services; wages in line with the difficulty of the job; travel support in districts covering large areas; reduced work load.

2. Health visitation *should be genuinely comprehensive*. The problem of insufficient resources should be dealt with. Local governments should be made to comply with the regulations and their service provision activities should be monitored. Wherever they are needed, health visitors with professional training should be offered fair wages in line with the difficulty of their jobs. *Travel support* (use of a car, fuel allowance, etc.) should be offered to health visitors covering districts extending over large areas. The *work load* should be alleviated and/or more resources (possibly more health visitors) should be allocated for the task depending on the social composition of the district. A standardised *district level assessment* procedure should be introduced, which should be applied on a regular basis. The initial and advanced training procedures for health visitors should be adjusted to the changing requirements of the job, since the current standard of training, competences and conditions do not allow a substantial element of the duties specified by the regulations to be fulfilled. By introducing a more up-to-date standard of duties and skills for paediatricians and health visitors and supplying better specifications on training and job practices appropriate to a public health provision approach, it could be guaranteed that the new requirements of the job are successfully satisfied.

3. The following steps are needed to develop an appropriate monitoring system. *a) Standard procedures should be introduced* for storing information on children in an electronic format, assessment and documentation systems should

[9] A highly successful example is the Canadian initiative Linked-DISC (Linked Information Network for Kids Electronic Database – Developmental and Intervention Services for Children), which uses geographic information systems (GIS) to monitor the availability of services, institutions or opportunities that are in the service of early child development in a given community or region. The system allows professionals to assess and evaluate the relationship between children's progress on the one hand and the availability of health, education, training and social services on the other. Other well known and related schemes include the Mapping Program (HERTZMAN ET AL., 2000), and the Integrated Children's Services system used in the United Kingdom.

In developing a monitoring system, different databases should be linkable – while ensuring that the principles of data privacy are not violated.

Methodology centre

be simplified and computerized, different databases should be linkable while ensuring that the principles of data protection are not violated.
*b)* A *methodology centre* should be established with representatives of all relevant disciplines. It would be the responsibility of the centre to redesign the entire system and develop both a protocol and professional standards. The centre (an independent unit of the Hungarian Institute of Child Health working in co-operation with the health protection authority (ÁNTSZ), accountable to the Ministry of Health) could run and maintain the data system.
*c) All health visitation and family doctors, GPs, (paediatricians) should be supplied with computing equipment and software*. They should be trained on the use of the tools and on ensuring the cross-compatibility of assessment records. The necessary resources could be secured by the Social Renewal Operational Programme of the New Hungary Development Plan (ÚMFT TÁMOP).
*d)* It must be ensured that the *assessment procedures* specified by the new restructured and standardized system *are applied to each and every child.* This should be a legally binding requirement and compliance should be monitored through the funding system. Failure to apply the assessment procedures or to record all required data should be penalized.
*e)* These requirements impose *additional duties* on health visitors and family doctors, which must be reflected in wages. Since family doctors have contact with the National Insurance Fund but health visitors do not, the latter should be recompensed for the extra duties arising from the assessment requirement and for the targeted intervention with the mediation of family physicians.

Information on identifiable persons accessed by the family physician or pediatrician may only be disclosed to the parents and the health visitor.

*f)* The system must strictly respect the privacy of data. Information on an identifiable individual accessed by the family physician or paediatrician may only be disclosed to the parents and the health visitor. Information gathered elsewhere can remain with the data collector — the medical records of childbirth, for instance, are stored by the hospital unit — but family physicians and health visitors should have full access to these records. Aggregate and anonymized data can be made available to other people for purposes of sector development and service schemes.

4. The early years programme *Sure Start* has been set up with the objective of alleviating child poverty and children's social exclusion in the United Kingdom. It focuses on children with disadvantaged backgrounds who have limited access to various services. *Sure Start* was launched in 1999 and the programme is rolled out in stages; it is currently in the sixth round of its activities. 500 local groups have been set up so far reaching four million target children, which constitutes a third of children under the age of four living in poverty. The programme targets two main areas of child welfare: *1.* encouraging children's social and emotional development, protecting child health and improving skills and abilities; and *2.* supporting the family as a community.

The *Sure Start* programme heavily relies on cross-sector co-operation and contacts with civil organisations. Delivered through local initiatives, the pro-

gramme aims to attain equal opportunities for children from birth to 6 years of age by providing multi-level support for families with young children living in disadvantaged regions, villages, urban areas or housing estates. The services are aimed at forestalling the adverse effects of child poverty on health, social well-being and cognitive development and providing equitable care appropriate to the needs of children at different ages.

The nationwide programme *Sure Start* has undertaken to forstall the effects of child poverty.

The nationwide programme *Sure Start* has undertaken to break the "deprivation cycle" in an effort to forestall the effects of child poverty. The task is approached by setting up cross-sector and civil collaboration networks in order to provide community support for young children living in disadvantaged regions or under deprived circumstances. The providers work together in securing social and health care as well as daytime care for the children, and support for the families according to local needs. The services of *Sure Start* are delivered through newly formed integrated packages, community initiatives moulded to local needs with the co-operation of child health organisations and early day care institutions (nurseries, kindergartens, and family and welfare support services). Every existing local social, healthcare, education and child welfare institution and service must be involved in the scheme. The programme allows local gaps in target services to be filled as needed. The co-ordinated operation of integrated nursery, kindergarten, play group and supporting services is especially important for a flexible day care system.

The programme was introduced to a Hungarian audience in 2003 at an event organised by the British Embassy and the Ministry of Health and Social Affairs. A Hungarian work group was subsequently formed, which was charged with developing a programme for Hungary and making arrangements for its introduction. Pilot programmes were launched in settlements and micro-regions of different types (Ózd, Vásárosnamény and six satellite settlements, Budapest Józsefváros, Csurgó-Őrtilos, and Mórahalom). In a second round in 2005, local *Sure Start* programmes were set up in Katymár and Győr.[10]

The programmes must be rolled out to as many areas as possible.

The *Sure Start* early years programme, which has now been launched in a number of other locations, should be rolled out to as many areas as possible so that under fives together with their parents (most typically mothers) can use early years community services — especially in the most disadvantaged regions and settlements. This also applies to children not attending day care facilities, especially where the family needs extra support with parenting because of their low educational attainment, poverty or other impediment. However, the effects of this service on the entire system of early years' care giving, on the renewal of professional and lay thinking and on people's attitudes towards child rearing cannot be overrated.

[10] On the Hungarian *Sure Start* initiative see www.szmm.gov.hu, and http://www.gyerekesely.hu/index.php?searchword=Biztos+kezdet&option=com_search&Itemid.

The Children's House community service is supervised by *a professional specifically trained for this task*. Both parents and children participate in the activities but a short-term childminding service is also available if needed. The programme is developed in co-operation with other services available in the locality taking local circumstances and needs into consideration. A practice that has recently became consolidated in Great Britain is a good example: based on the evaluation of the results of the *Sure Start* programme and learning from past experiences, the services are planned to be rolled out to all children up to the age of 14. These experiences can be adapted and used in Hungary.

5. A system of day care facilities must be developed having flexibility and keeping children's needs and the circumstances of their families in mind. As a first step towards achieving this goal, *the flexibility of the current system must be improved*. Much could be gained by expanding the *home-based childminding service* and the system of *family day care*. It should be ensured that there is a kindergarten place for every child from the age of 4. For a kindergarten facility — like nursery schools, family day care facilities and any other service — to maintain high standards the staff must be skilled and motivated, all necessary equipment should be available and the programmes should observe the principles that have been pre-defined with consideration to children's complex developmental needs. The quality of service should be continuously monitored and evaluated.

Expanded home-based childminding service and family day care. Every child should have a kindergarten place from the age of 4.

The quality of kindergarten service is not normally affected if younger children are provided with care in mixed, integrated groups. The success of a kindergarten is shown by assessments, evaluations and quality control, parent and child satisfaction and, in the long term, by the children's subsequent school achievements. This presupposes a partnership with the parents and extensive consideration for the rights and developmental needs of the children. Tasks and methods undoubtedly keep changing, which means that current assumptions, skills and practices should be adjusted. New methods, however, should not lose sight of earlier ones and the established child development experiences of nursery schools should be combined with current knowledge of, and research outcomes related to, early child development. Considering the sustained and excellent tradition of kindergarten practice in Hungary, this will lead to success.

The concern that *home-based childminding* and *family day care* may be cheap solutions with lower standards, thus restricting the outreach of the kindergarten service, is without any foundation. Firstly, these services have no possibility of replacing the kindergarten system; they may only function in combination with it, providing a supplementary service for a fairly small section of the child population. Secondly, the kindergarten tradition of Hungary has definitive significance thanks to positive experiences and the view firmly held by public opinion that children of the relevant age need both the community and the programs which are provided in kindergartens.

An expansion of the home-based childminding service is important in situations where sickness, special family circumstances or other factors prevent a child from attending institutional day care facilities, where no other service is available in the area and where only temporary or limited (a few hours), help is needed.

Family day care has been discussed before. Once again, it is especially a shortage of nursery schools and kindergartens or special circumstances of some kind that call for this type of day care but it also represents a good way of providing after-school programs in place of, or in addition to, other types of day care. With a more colourful, diverse and competitive mixture of facilities on offer, there are better chances of good quality services suited to individual needs. Local governments may not replace institutional day care services (nursery schools, kindergartens) with other types of day care services unless this is licensed and encouraged by the professional and financial regulations. Law makers and professional bodies must approach this issue with caution to ensure that the regulations encourage and enforce the best possible solutions.

6. In order for the practice described to become a widely accepted standard, the general laws of early child development and the theoretical and practical principles and methods guiding this development need to be disseminated to a much wider audience in much greater detail than is the case at present.[11] This can be achieved by *restructuring professional training practices* such that a unified consistent view of the basic principles of early years development is taught. The literature on developmental psychology, the methods of early years education and the foundational issues behind these should be made available (in an appropriate format and with appropriate content) to all (parents, professionals, the general public and the media). Basic and advanced professional training should be organized accordingly, paying special attention to maintaining co-operation, which is crucial for the different disciplines and professional experiences to be mutually accessible. *An independent BA training programme dedicated to early child development should be launched* and professionals currently working in this field should receive vocational and in-service training.

Professional training programmes should be restructured such that a single consistent view of the basic principles of early years development is taught.

7. As regards early years programmes, what is needed is an assessment, evaluation and reinforcement of current programmes, services and institutions as well as the development of a system of integrated, mutually co-operative programmes and services that ensure that every child receives the care that encour-

[11] A survey conducted in 1997 in California (CCHI, 2000) revealed that 46 per cent of parents (57 per cent of fathers) did not know that the period from 0 to 3 years of age was decisive with respect to brain development. As a result of a media and popular science campaign, this figure was reduced to 2 per cent in three years. We may wonder what the outcome of a similar survey involving professionals and parents would be in Hungary.

Early years programmes linked with the Opportunities for Children (Gyermekesély) programme.

ages optimum growth and development in a secure and caring environment and is appropriate to the child's age, personal and cognitive development and family circumstances. The services must be continuous, linked to currently active initiatives, and close contacts must be maintained with the Opportunities for Children (Gyermekesély) programme, which secures EU funding.

The Opportunities for Children initiative aims to
*a)* dramatically reduce (to a fraction of its current level) the proportion of poor children and families in the population of Hungary over a single generation,
*b)* eradicate extreme forms of children's social exclusion and dire levels of poverty,
*c)* reform the mechanisms and institutions that currently regenerate poverty and exclusion, specifically
*d)* secure healthy living conditions from the earliest age,
*e)* secure early education opportunities to encourage better cognitive development,
*f)* substantially reduce regional and ethnic inequalities that currently determine people's destinies, and
*g)* help children grow up in a secure environment, thus minimizing the probability of limiting life perspectives and future opportunities and outcomes.[12]

These objectives are consonant with those represented by the author of this paper. Naturally, there are some differences in emphasis, since the Opportunities for Children programme is primarily targeted at the reduction of child poverty, while the programme concerned with early child development and the reform of public education targets every child, paying special attention to those living in disadvantaged, marginalised conditions. If the public's awareness of children's needs, risk factors and ways of preventing and dealing with them can be successfully raised, public opinion will be transformed and thus, in addition to the public knowledge pool, social sensitivity will also be increased and it will become clear that all of society loses out if children's opportunities are not made equal and the conditions for their optimum development are not created.

The implementation of the programme presupposes a dialogue within and across the disciplines involved and an evidence and practice based description of the basic principles and related practical tasks. The final proposal preparing the ground for general operation should be one which is implementable and acceptable to all involved.

[12] For a description of the programme in Hungarian, see: http://www.gyerekesely.hu/index.php.

## ■ GAINS AND COSTS

The prospects for early child care and education in the home and in the community may substantially improve within a few years. One measure of the programme's effectiveness is children's success in entering school and over the following school years. This means that the children are more motivated to learn, achieve more in their studies, there is a stronger co-operation between the parents and the school and that the entire social provision system — health, education and social services — functions more efficiently. Research results show that significant improvement can be achieved in connection with marginalised groups, not only in educational attainment but also in women's employment, income and quality of life.

The costs of the programme are difficult to estimate because it cannot be established as to what extent the costs of the current system would be reduced if it functioned more efficiently. Although assessment, evaluation and longitudinal surveys are cost and equipment-intensive tasks, the equipment and the financial resources would be needed in any case — the absence of these procedures creates losses and expenses which currently place a substantial burden on the state budget [the absence of appropriate prevention measures, for instance, creates a need for late intervention (in case of premature birth, disability, abuse, etc.)]. Another problem is that no indicators are available for measuring the quality of life. The costs of early years' day care are difficult to estimate as they vary greatly by the type of care, and stricter regulations — such as those applying to nursery schools — create higher costs, i.e., the total financial burden greatly depends on the structure of development. The staff and training requirements of the programme depend on its range. If it is first launched in disadvantaged regions, the unemployed can be extensively involved, while in more developed regions there is a high probability of career change, which means that sufficiently attractive conditions must be created in order to succeed in establishing new services of high quality.

All of the proposed programmes can be run in parallel with the second National Development Plan. Public health and early years' development oriented day care services are also closely related to labour market programmes aimed at enhancing women's employment and adult education.

## ■ CONFLICTING INTERESTS

The basic source of conflict is that the current structure of education and welfare services defines rigid professional boundaries between sectors which are difficult or impossible to cross. A restructuring of the health visitation system involves fundamental changes to training centres, the medical profession and local governments offering basic child welfare services. A reform of the profes-

sional practices and operating principles of early years day care institutions — kindergartens and nursery schools — may be met with resistance on the part of professionals and institutions generally because they are assigned duties which deviate from previous practices in their approach and, to some extent, in their content. The change may involve new working hours (flexible opening hours, non-stop care provision, and liaison with the parents) and new working conditions (competing services, sector neutrality). A transparent, achievement and result oriented system may initially be met with reservations but predictable and efficient practices, better conditions and higher professional standards should prove to be attractive to most professionals and institutions.

### ▪ WHAT WE DO NOT WANT

We certainly do not want efficient and successful programmes and services to falter. By building on the sound tradition of the health visitation service, we intend to protect the profession from decline and erosion but do not wish to put an end to universality. Changes to the nursery school and kindergarten system, the expansion of services and the modernisation of some approaches are planned to be introduced while keeping the good practices of the current structure untouched. The parent education, self-help groups, and participation in *Sure Start* programmes would be voluntary; paternalistic programmes threatening the autonomy of families are certainly to be avoided. We do not wish to interfere with the lives of the families or lecture them on what the 'best' solution is but we do want to avoid the private sector and the illusion of free choice in child care and education constituting a risk to children and leading to their inadequate development.

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[APPENDIX 1.1/FIGURE F1.1]

## PATHWAYS TO SCHOOL READINESS AND RISKS

[SOURCE] THOMPSON ET AL. (2005).




*These strategies refer parents and children to speciality care. + These strategies increase access to all strategies that improve child and family outcomes and special needs populations.

[APPENDIX 1.2] AN OVERVIEW OF EARLY YEARS' PROGRAMMES FROM ENGLE ET AL. (2007)

PANEL 1: CHARACTERISTICS OF SUCCESSFUL EARLY YEARS' PROGRAMMES

*Adapted from JARAMILLO & MINGAT, p. 111.

- Integration of health, nutrition, education, social, and economic development, and collaboration between governmental agencies and civil society.
- A focus on disadvantaged children.
- Sufficient intensity and duration and include direct contact with children beginning early in life.
- Parents and families as partners with teachers or caregivers in supporting children's development.*
- Provide opportunities for children to initiate and instigate their own learning and exploration of their surroundings with age-appropriate activities.
- Blend traditional child-rearing practices and cultural beliefs with evidence-based approaches.*
- Provide early child development staff with systematic in service training, supportive and continuous supervision, observational methods to monitor children's development, practice, and good theoretical and learning material support.*

PANEL 2: REASONS THAT GOVERNMENTS DO NOT INVEST IN EARLY CHILD DEVELOPMENT INTERVENTIONS

- Children's loss of developmental potential, and the cost of loss of developmental potential, both for individual children and poverty alleviation,
- are not recognised.
- There are no globally accepted indicators for child development to monitor progress or ensure accountability.
- Governments respond to short-term effects and find difficultly in justifying the long-term investment in human development.
- There are multiple organisational stakeholders for young children, so the responsibility for early child development is not assumed by any entity.
- There is not a single strategy for promoting early child development.

PANEL 3: WHY GOVERNMENTS SHOULD INVEST IN INTERVENTIONS FOR EARLY CHILD DEVELOPMENT

- It is the most cost-effective period in the child's life to invest.
- Events in the early years of a child's life influence the child's productivity and learning ability throughout the life course, and are effective strategies for reducing poverty among disadvantaged populations.
- Programmes increase the efficiency and effectiveness of school expenditures by reducing drop-out and repetition.
- Increased schooling for girls has a long-term effect on their children's survival, growth and development.
- Interventions are more sustainable because parents and families carry these changes over to subsequent children.
- There is a strong evidence base on effective interventions for early child development.
- The Convention on the Rights of the Child ensures every child the right to development as well as survival, and requires governments to support families in child rearing.

PANEL 4: POLICY AND PROGRAMME RECOMMENDATIONS

- Implement early child development interventions in infancy through families and caregivers, and add group learning experiences from 3 to 6 years, particularly for disadvantaged children as a poverty reduction strategy.
- Ensure that development programmes combine health and nutrition services with early learning, rely on families as partners, and have adequate quality, intensity, and duration to affect children's development cost effectively.

- Incorporate early child development into existing services and systems to increase programme coverage.
- Monitor the effectiveness of programmes with outcome measures of child development.
- Increase advocacy on the importance of early child development and the consequences of the loss of developmental potential to individuals and to society.
- Include programmes in policies and financial allocations at national, local, or international levels.
- Create coordinating mechanisms for ministries that share the responsibility for early childhood development.
- Ensure that all children are adequately nourished, including micronutrients, such as iodine and iron.

## 5. RESEARCH PROPOSALS

- Identify the characteristics of child development programmes that are effective and can be expanded and implemented through existing health, nutrition, education, and social protection services.
- Examine the role of early child development programmes in mitigating the effects of multiple disadvantages, including poverty.
- Research parenting interventions to identify the most effective and scaleable strategies.
- Assess possible synergies among programme components to guide implementation recommendations.
- Define a core set of globally accepted measurements and indicators for child development that can be adapted across countries for monitoring, planning, and assessment.
- Improve and assess strategies to increase effectiveness of outreach to disadvantaged children, including orphans.
- Strengthen the evidence base for the effects of maternal depression, exposure to violence, parental loss, toxins, malaria and other infectious diseases on child development and identify effective interventions to reduce their risks and adverse consequences.
- Create and test a method for estimating the costs of different models of early child development programmes.

# 2 Renewing primary education

[József Nagy]

For several centuries the growing need for knowledge in society and the economy was satisfied by expanding education: participation rates and the number of compulsory school years were steadily increased. The phenomenon of pupils dropping out of school acted as a natural selective, homogenising filter. In the socio-economic environment of our age, however, everyone is expected to possess the skills and abilities taught at the secondary level of education and it is therefore essential to make secondary education accessible to all. Both individual lives and the labour market are adversely affected if pupils interrupt their studies prematurely and move on without attaining the necessary knowledge. The first few years of schooling are decisive with respect to later studies. This is the stage when the basic skills and abilities which provide the foundations of all later studies should be developed. It is at this stage that children's overall relationship with learning is shaped, learning habits and attitudes toward school and school subjects are formed. Motivation, a learner's self-concept, expectations and goals for the future are greatly influenced by initial successes or failures.

Although the significance of childhood experiences has been emphasised by philosophers, educationists and practicing teachers for a long time, convincing scientific evidence concerning the significance of child development has only been available for the past few decades. Some countries have already drawn the lessons from them and now place special emphasis in their education programmes on young children's development. Among them are education systems with internationally outstanding outcomes (Finland and South Korea, for instance) and countries that have launched remarkable reform programmes (such as the United States) with special focus on the renewal of the first stage of formal education.

## ▪ DIAGNOSIS

1. The educational culture characterising primary education has barely changed over recent decades. The developments accompanying the regime change, however, had a degrading effect on this stage of schooling. The decentralisation of education management was not accompanied by a multiplication of expertise needed to make the right decisions, differences in the financial means of school maintaining authorities create large deviations in learning conditions from the very beginning of formal education and the gap between schools has been further widened by the policy of open school choice.

Later educational accomplishments are largely determined by extreme developmental differences at the start of schooling.

The causes of disadvantages are not investigated in an effort to tailor teaching to individual needs.

Poor performers from disadvantaged backgrounds are segregated and the education system is highly selective.

Children are assigned to school years according to their age with the result that there may be extreme developmental differences between children attending the same year. The Hungarian school system is not equipped to deal with these differences effectively. Disadvantages of various types are not distinguished, the causes of poor achievement are not investigated, teaching is not tailored to individual needs and there are no programmes to compensate for disadvantages. As a consequence, a child's developmental level at the point of starting school greatly determines his or her educational accomplishments at later stages. A significant proportion of pupils drop out of school and it has become common practice to segregate poor performers and educate them in separate classes or schools, disregarding the reason behind their poor performance (which is often the absence of a supportive family background). The Hungarian education system is consequently more selective than any other system in the developed world.

Schools continue to be content-centred, teaching largely consists in imparting course contents to the pupils, "covering subject matter". All children are generally taught the same topics for the same period of time regardless of their prior knowledge or developmental stage. The developmental efforts targeting particular skills end when the predetermined time is up regardless of the level of mastery attained by the children. Learners will therefore have varied levels of knowledge of a given subject matter at the end of a learning period and will accordingly differ in how well prepared they are to move on to the next task. Thus there will be a constantly growing number of pupils who are made to set out to acquire new subject matter with no hope of success. Failure and repeated discouragement have the effect of turning these children against learning. If as a result of this process the majority of pupils in a class are constantly faced with tasks surpassing their current abilities, anti-learning and anti-social groups will emerge.

2. Of the many different types of problems inherent in the transition to school life, special attention must be paid to the fact that children starting school are at *very different developmental stages* and this may have serious consequences. A certain level of development is a precondition for a successful school start. There are well-defined prerequisites for the acquisition of reading, writing, numeracy, language and problem solving skills and if these are not satisfied, any attempt at developing these is doomed to failure. Let us illustrate differences in developmental stages through an everyday example: we start walking at different ages because we need varying amounts of time for the optimal acquisition of this skill depending on our inherited and acquired traits required for this skill. It is this aptitude-dependent time requirement that gives rise to phase differences (a delay or an advance). Developmental phase differences do not necessarily result in differences in the quality of acquired knowledge provided that pupils can take the time they each need: those who start walking late because they needed much longer than usual for the optimal acquisition of this skill may end up champion walkers nevertheless.

Developmental phase differences do not necessarily result in differences in the quality of acquired knowledge provided that pupils can take the time they each need.

It has been known for decades (see, for instance, NAGY, 1980) that there may be a developmental gap of more than five years between pupils in a single cohort of school starters. The youngest and the oldest child in a cohort may be separated by at most one year in chronological age but this may amount to more than fives years in terms of mental age and more than six years in terms of social age. What this means is that assuming an average rate of development, children with the longest phase delay need, respectively, two and half years' and three years' extra time to reach the mental and social developmental stage typical of their cohort and five and six extra years' time to progress to the stage characterising the high end of their cohort. The range discussed here does not include children with serious disabilities, who make up 1–1.5 per cent of each cohort. Children who are often categorised as having mild mental impairment or specific learning disabilities are, however, held to pose a serious problem for the public education system (especially in year one and in primary education) even though the majority of these pupils are in fact characterised by a significant developmental delay rather than medical mental impairment or disabilities. They constitute about 6.5 per cent of each cohort.

Children with the longest phase delay need, respectively, two and a half years' and three years' extra time to reach the mental and social developmental stage typical of their generation.

The legislation on compulsory schooling specifies a certain chronological age when children must enrol in school. There have always been developmental differences between children but these were disregarded for a long time and the system went through a spontaneous process of *homogenization* as more and more pupils dropped out or left school at the end of a certain stage of the progressive stages of education. This process ensured that the initial developmental gap between pupils did not grow further. The situation changed radically when public education was made compulsory to all. Initial differences between children now have the consequence that a syllabus designed with an average pupil in mind is too difficult to follow and master for those who do not have the necessary prior knowledge. The increasingly complicated and abstract subject materials taught in higher years become more and more alien and incomprehensible to them.

There have always been developmental differences between children but in the past the system went through a spontaneous homogenization process as more and more pupils left school.

The growing body of surveys assessing the development of cognitive and social skills and abilities reveal that while some pupils show steady progress thanks to formal education and regular learning activities in the home, about 25–35 per cent of pupils "switch off" and give up from year 4 or 6 onwards. Hungarian assessments indicate, for instance, that the basic cognitive skills and abilities of vocational school students do not on the whole progress beyond the level typical of primary school pupils in year 5 or 6 (see for instance NAGY, 2003). Data on learning motivation and the development of social skills paint an even more negative picture: most assessments show stagnation or even regress.

While some pupils show steady progress thanks to formal education and regular learning activities in the home, about 25–30 per cent of pupils "switch off" and give up from year 4 or 6 onwards.

These processes have two especially serious consequences. It is clear from the above data that the developmental gap between learners not only fails to decrease but unmistakably and steadily grows. The five year gap observed in year one doubles in size by the end of year 10. The average cognitive abilities

The five year gap observed in year one doubles in size by the end of year 10.

of the most slowly developing students in year 10 correspond to the average cognitive abilities of year 5 students. The top students in year 10, at the same time, display cognitive abilities matching the average performance of the 20–21 year old population. (This is the difference between an overage student finally dropping out of primary education and an excelling 16 year old secondary school student.)

The other consequence is that further education prospects and entire adult careers are pre-determined by the entry level of development for most pupils. An earlier study (NAGY, 1974) found a correlation of 0.86 between first year performance and eighth year performance. This result confirms the now widely acknowledged fact that the level of cognitive and social development attained up to the start of school and the several years' developmental gap have a decisive impact on people's entire lives.

These problems were recognised in developed countries a long time ago. Movements of pedagogical reform have explored several different potential solutions: a number of tools have been developed to tackle the problem of the steadily growing developmental gap amounting to years of difference originating in an initial phase delay. Two of these will be discussed briefly below, both of which are system-level and are still in use but have by now become inadequate.[1]

3. *Can grade retention help?* Grade retention lets pupils have extra time to catch up and close the expanding developmental gap. Studies showed as early as the sixties, however, that grade retention by itself is not sufficient to eliminate delays (unless they are due to long-term absence). Several experiments have been conducted on education without grade retention (with automatic promotion). The most fundamental, still valid conclusions of these are aptly illustrated by the results of an exemplary study (WORTH, 1971). Half of underperforming pupils in the sample were promoted to the next grade while the other half were retained. At the end of the school year pupils' achievements were assessed in 12 core areas. Eight of the 12 assessments showed no significant difference between retained and promoted pupils, promoted pupils performed slightly better on three of the tests and the results of one test showed a slight advantage for the retained group. Both promoted and retained pupils remained the weakest performers in their respective classes. The experiment demonstrated that the punitive and humiliating practice of grade retention, the wasteful repetition of an entire year, does not have any real benefits. However, an education system where grade retention is prohibited by law is equally unsuccessful in tackling problems stemming from extreme developmental differences and extreme heterogeneity.

The humiliating practice of grade retention, the wasteful repetition of an entire year, does not have any real benefits. However, an education system with no grade retention is equally unsuccessful in tacking problems stemming from extreme heterogeneity.

[1] We shall not discuss differential instruction, compensation and other similar methods here. They all may help alleviate differences, but by themselves they are insufficient to address developmental gaps measurable in years.

4. *Homogenization*. The term homogenization is used here to describe the process of sorting and segregating pupils according to certain criteria in an effort to boost performance. The clearest and most consistent version of homogenization, the practice of streaming, was first introduced in England in the late 19th century. Pupils in the same year of study were divided according to ability, intelligence and developmental stage and the resulting groups were taught in different classes. About half of pupils attended schools of this kind until the mid-20th century, after which their proportion gradually declined and at present there are hardly any schools left using the original streaming system. Homogenization has taken many different forms around the world. The subject is remarkably varied and a rich body of research has addressed the issue. Three of their conclusions are discussed below.

The societal and sociological consequences of homogenization have always been the subject of criticism backed by research evidence. Olsen, for instance, wrote, "When we place pupils in classes according to abilities, we segregate them and form intellectual ghettos which parallel social ghettos, whether this ghetto be Park Avenue, or Harlem" (OLSEN, 1971). However, the view that homogenized classes may be objectionable in this respect but produce better academic results because of their homogeneity was upheld for a long time. Research evidence discrediting this view first appeared in the sixties. Studies comparing schools educating their pupils in segregated (homogenous) classes to schools teaching pupils in heterogeneous classes conclude that homogenized education is not any more successful in terms of academic achievement (HILLSON & HYMAN, 1971). A UNESCO survey involving 12 countries revealed as early as 1963 that a system of homogenized classes increased developmental differences between young generations.

Schools teaching learners in homogenized classes are not any more successful.

These findings and conclusions have been again and again replicated in later surveys.[2] We may contend, then, that homogenization as described above has proved to be a pedagogical dead end. Nevertheless, homogenization attempts, efforts to reduce heterogeneity with the aim to improve outcomes, surface in several countries in a variety of shapes — be they overt or covert — regardless of whether the practice is accepted, tolerated or prohibited. This does not mean, however, that a policy of eliminating homogenization and segregation by legal means would be sufficient for moderating extreme heterogeneity and mitigating the problems stemming from it in an effort to improve outcomes and equality of opportunity. To achieve this aim, pedagogical culture must be renewed.

5. *Knowledge-centred versus competency-based pedagogical culture.* A knowledge-centred pedagogical culture focusing on lexical contents does not devote appropriate attention to the development of psychological factors, their

[2] In PISA surveys, for instance, the top performing countries are invariably those where there is no early segregation in the school system, where schools are ready to accept differences and have heterogeneous compositions.

A knowledge-centred pedagogical culture with its focus on lexical contents does not devote appropriate attention to the basic system underlying the personality and is therefore incapable of delivering systematic development programmes.

organisation and operation, acquisition processes or the criteria of optimal acquisition and usability, and is therefore incapable of delivering purposeful and systematic development programmes. A competency-based pedagogical culture creates and uses this knowledge and can thus offer a solution to the increasingly serious efficiency and equality problems generated by traditional pedagogical culture.

Traditional pedagogical culture does not distinguish personality as a whole from its underlying basic system (or, to use a computer analogy, its "operating system"). The basic system underlying personality is a functional system of psychological basic components — basic motives, basic skills, basic abilities, basic concepts and key competences — that allow an individual to function, adapt and develop, i.e., to grow into a successful adult member of society. The components of this basic system must be developed fully with conscious effort for each individual. Since knowledge-based education altogether disregards the distinction between the personality and its "operating system", it is left to chance whether each of the crucial basic components duly develops or stagnates at an unusable level for a given individual. *Competency-based education, in contrast, focuses on developing the basic system and sees all other kinds of knowledge as subservient to the development of individuality.*

Traditional education allocates a given period of time (lessons, school terms or years) for the acquisition of a certain body of knowledge, which applies to all learners regardless of their level of development or prior knowledge. This leads to steadily declining effectiveness and growing inequality — due to the increasing gap in prior knowledge — and to motivation problems. Mastery learning is a promising attempt at solving this problem even if there are areas where the principle of "proficiency for everyone in everything" cannot be applied. The method should be used in developmental efforts targeting basic skills and abilities that form the foundations of all later learning and cognitive development. In a competency-based education system every pupil is given as much time as they need to meet the criteria of optimal acquisition. This criterion-referenced strategy involves continuous provision of help and support for the learners that may traverse topics, school terms, school years or education levels.

Mastery learning may offer a solution even though there are areas where the principle of "proficiency for everyone in everything" cannot be applied. The method should be used in developmental efforts targeting basic skills and abilities that form the foundations of all later learning and cognitive development.

If a piece of knowledge is not referred to or used regularly, it is highly likely to be forgotten. This is a natural and inevitable process. Yet, knowledge-centred pedagogical culture does not reckon with it, different elements of knowledge are not weighted according to their importance and no provision is made for the regular application of knowledge forming the foundations of learning at later stages. Traditional pedagogical culture leaves it to chance whether a particular piece of knowledge will be retained over time. Competency-based education, in contrast, sees continuous support in the service of optimal acquisition as a fundamental task.

Notwithstanding its rich century-old tradition, active learning has never become common practice.

Notwithstanding its rich century-old tradition, active learning and its facilitation have never become common practice at Hungarian schools. A similar observation can be made for group-based co-operative active learning even

though several varieties of group work have been developed over the past century or so and its effectiveness and positive impact on the development of basic social skills have been experimentally demonstrated. All in all, traditional pedagogical culture is incapable of adopting and supporting regular active group learning. One of the main reasons is that practicing teachers cannot be expected to prepare for activities of this kind on a regular basis.

If a programme of regular active group learning is to be introduced in the classroom, teachers and learners should be provided with a detailed, experimentally tested package of tools and materials.

If a programme of regular active group learning is to be introduced in the classroom, teachers and learners should be provided with a detailed, experimentally tested package of tools and materials (ideally with a range of different options to choose from). A package of this kind is indispensable for the implementation of a programme of several years' optimal, criterion-referenced development of basic personality components. The regular use of group-based/co-operative active learning is a fundamental feature of competency-based pedagogical culture.

6. A further source of problems is that education continues to be teacher centred; classes are of an invariable duration and are dominated by frontal instruction. Pupils' desks in classrooms are typically arranged with this style of instruction in mind while just a simple rearrangement of classroom furniture would permit varied group work. The change from kindergarten to school is too abrupt, the playful education characterising kindergartens is replaced by formal, demanding and joyless school work all at once.

7. The goal of primary education is to develop the basic skills upon which all later learning is built. Key areas include linguistic skills, verbal skills and children's ability to express themselves in speech and writing and to read and comprehend texts. Counting, numeracy skills, mathematical and logical skills, and the acquisition of reasoning skills, including deduction, are prerequisites for understanding and mastering scientific knowledge taught at later stages. Schools offer very few opportunities for children to engage in activities developing various social roles and social skills needed for co-operation. The effects of failures during the first few years of formal education tend to surface at a later stage. Children cannot learn to interpret complicated texts or acquire basic mathematical and logical skills. The consequences become obvious at a later stage, when these skills should be used. The problems that surface towards the end of primary school or in vocational education have their origins in the first few years of schooling.

In the Hungarian education system the transition from primary education (years 1 to 4) to lower secondary (years 5 to 8) is just as abrupt as the change from kindergarten to school even though the former two stages are typically provided by the same school. At the end of their fourth year roughly 25–35 per cent of students are not ready to meet the challenges of lower secondary education and the curriculum of this stage is not flexible enough to take learners' level of development into consideration. Some of the pupils will therefore

be unable to keep up with the rest of their class and their cognitive and social development will be hampered. There are good reasons why in most countries the shift from elementary to secondary school coincides with the end of childhood, the beginning of adolescence. In Hungary, this would be paralleled by a structure where primary school spans years 1 to 5 or 6 rather than years 1 to 4, as is now the case. (Under the Hungarian system before World War II elementary schools did cover years 1 to 6.) Fortunately, it is not necessary to transform the school system to align educational stages with biological stages; the solution to these major problems lies in ensuring a smooth, problem-free transition between the stages of education. Let us consider three examples illustrating the consequences of the shift.

*a)* Drawing-like writing (which is fully acquired by the end of year 2 by all except those with serious dysgraphia) demand great concentration and a lot of time. When writing is used for a practical purpose, this letter-drawing method fails and handwriting disintegrates into a barely legible scribble. Roughly half of third year pupils have optimal letter drawing skills but the corresponding proportion is only 24 per cent in year 5 and remains at that low level until year 9.

*b)* 61 per cent of second year students' technical reading skill (enabling them to comprehend not more than written words and sentences) reaches merely preparatory or beginner levels in the terminology of the Diagnostic Development Index. At these levels, the reading skill is practically unusable for practical purposes. Although the corresponding proportion drops to 26 per cent in year 4, development slows down after this stage: 21 per cent of eighth year pupils have still not progressed beyond preparatory or beginner levels. The slowly improving or stagnant trends in the development of reading skills observed among pupils entering year 5 with slow and letter based word recognition are shown by the distribution curves in *Figure 2.1*. Children who enter lower secondary education without the basic skill of reading cannot progress any further and are very likely to need to live their lives with virtually non-existent reading abilities. We do not need detailed analyses to see that primary education fails to develop the technical reading skills of a large share of pupils to the level required at lower secondary education. And lower secondary education in Hungary does not take the large differences between admitted learners' reading skills into consideration.

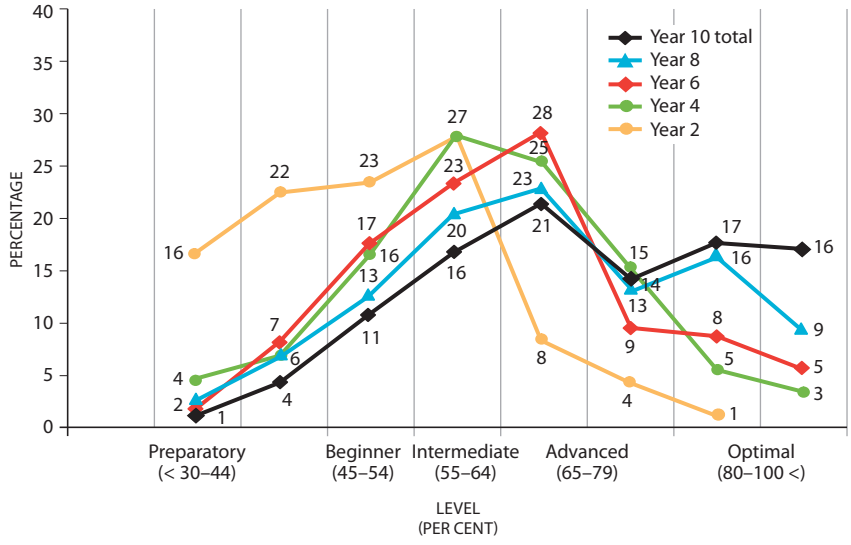
*c)* The acquisition of elementary arithmetic skills presents similar problems. Around 40 per cent of children attain optimal proficiency in elementary arithmetic by the end their fourth year at school. Years 5 and 6 are characterised by a slower rate of development. Half of pupils entering year 7 stop progressing any further, and in year 9 only about 50 per cent of pupils possess elementary arithmetic skills of an optimal level of proficiency and usability. As regards those at the preparatory and beginner levels, 33 per cent of pupils enter lower secondary education with elementary arithmetic skills so poor that they cannot be put to practical use. Although their share decreases over the next four years, as many as 13 per cent of pupils are still effectively number illiterate in their ninth year of schooling.

[FIGURE 2.1]
The development of technical reading skills

[SOURCE] NAGY (2004).

SHARE OF PUPILS ATTAINING EACH DEVELOPMENT LEVEL BY YEAR (PER CENT)

| | Preparatory | Beginner | Intermediate | Advanced | Optimal |
|---|---|---|---|---|---|
| Year 10 academic | 3 | 8 | 14 | 33 | 42 |
| Year 10 comprehensive | 4 | 8 | 15 | 35 | 38 |
| Year 10 vocational | 8 | 16 | 20 | 37 | 17 |
| Year 10 total | 5 | 11 | 16 | 35 | 33 |
| Year 8 | 8 | 13 | 20 | 36 | 25 |
| Year 6 | 9 | 17 | 23 | 37 | 13 |
| Year 4 | 10 | 16 | 27 | 40 | 8 |
| Year 2 | 38 | 23 | 27 | 12 | 1 |



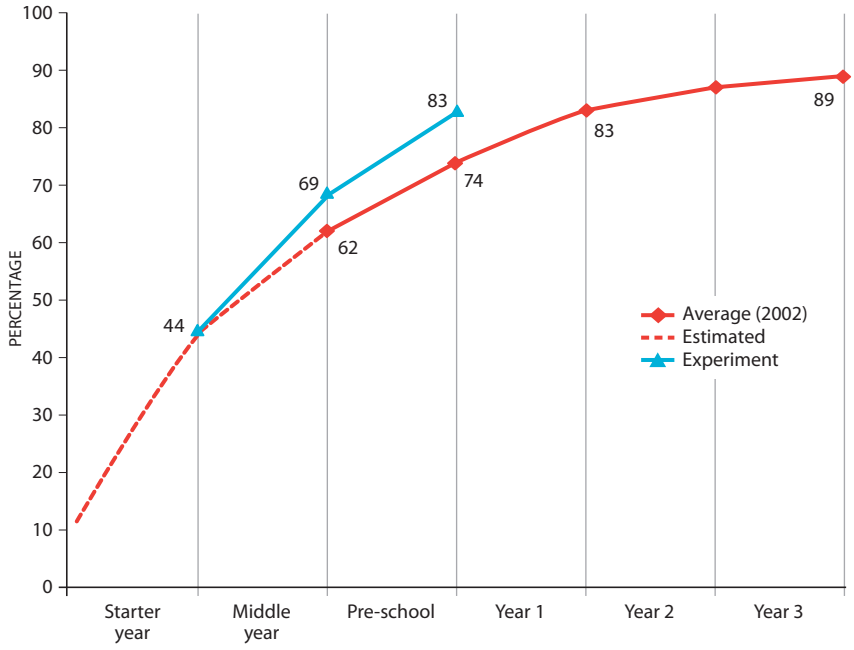

8. The problems caused by developmental phase differences are not impossible to remedy. It has been demonstrated by several Hungarian experimental studies that continuous criterion-referenced developmental efforts can effectively advance the acquisition of critical basic skills. The results of a two-year continuous criterion-referenced developmental intervention programme spanning the middle and pre-school years of kindergarten education (JÓZSA & ZENTAI, 2007) are displayed in *Figure 2.2*. At the beginning of the programme subjects in the middle-year of kindergarten (4–5-year-olds) performed at an average of 44 per cent. As indicated in the Figure, this result corresponds to the Hungarian national average. We can assume that if the subjects had not participated in the experiment, their spontaneous development would have followed the developmental curve characterising Hungarian children. The children were assessed again at the end of the first and the second academic years of the experimental programme and achieved average scores of 69 and 83 per cent respectively.

[FIGURE 2.2]
Results of a developmental intervention in the middle and pre-school years of kindergarten

[SOURCE] JÓZSA & ZENTAI (2007).

SHARE OF PUPILS ATTAINING EACH LEVEL OF THE DIAGNOSTIC DEVELOPMENT (DIFER) INDEX (PER CENT)

| | Preparatory | Beginner | Intermediate | Advanced | Optimal |
|---|---|---|---|---|---|
| National | 3 | 12 | 39 | 34 | 12 |
| Experimental | 1 | 5 | 15 | 44 | 35 |




That is, the children's performance improved by 69 – 44 = 25 percentage points in one year and 83 – 44 = 39 in two years. By comparing this improvement to the spontaneous development typical of Hungarian kindergarteners we can determine the added value of the experimental programme: 69 – 62 = 7 percentage points at the end of the middle year of kindergarten and 83 – 74 = 9 percentage points at the end of the pre-school year, i.e., an advantage of 7 + 9 = 16 percentage points in two years.

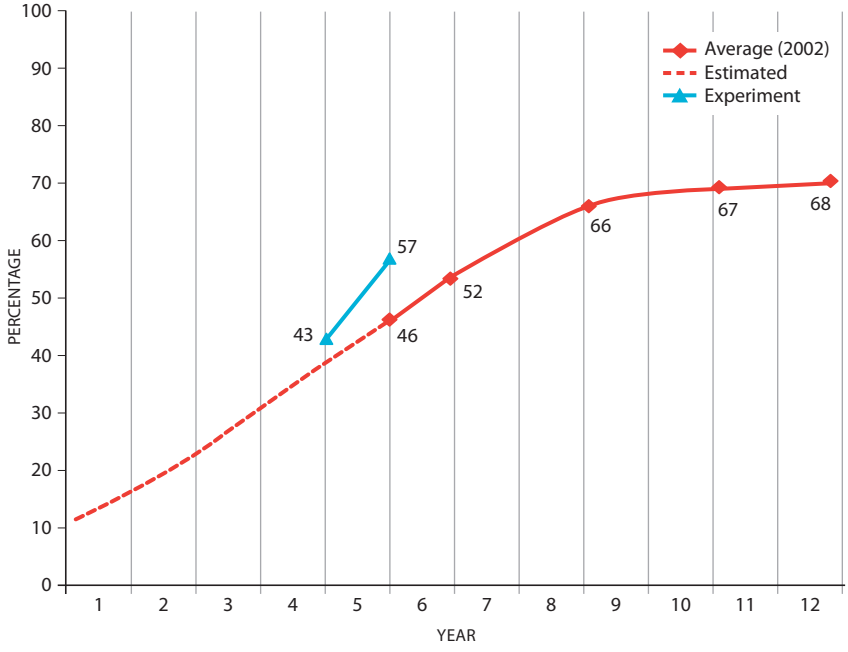
The effects of continuous criterion-referenced education also surface in measures far more important than the improvement of average performance: it helps children attain a school-ready level of proficiency in critical basic skills. In *Figure 2.2* the levels labelled "optimal" and "advanced" mark the levels of mastery necessary for school readiness. The results of a large-scale assessment have revealed that in Hungary 12 per cent of pre-school year kindergarteners perform at the optimal level and 34 per cent attain the advanced level if left to develop spontaneously. That is, 12 + 34 = 46 per cent of children starting school are sufficiently highly developed to be successful in their school work. The developmental experiment raised this share to 44 + 35 = 79 per cent. The national

[FIGURE 2.3]
Results of continuous criterion-referenced developmental intervention in year 5

[SOURCE] PAP-SZIGETI (2007).

SHARE OF PUPILS ATTAINING EACH DEVELOPMENT LEVEL (PER CENT)

| | Preparatory | Beginner | Intermediate | Advanced | Optimal |
|---|---|---|---|---|---|
| National | 24 | 26 | 26 | 18 | 6 |
| Experimental | 8 | 21 | 29 | 30 | 12 |




figures further show that 3 per cent of all children do not progress beyond the preparatory level of acquisition before they start school and a further 12 per cent reach only the beginner level. That is, 3 + 12 = 15 per cent of children do not reach the developmental level required for success at school. The intervention reduced this proportion to 1 + 5 = 6 per cent.

A second continuous criterion-referenced experimental programme was delivered in year 5 of schooling (PAP-SZIGETI ET AL., 2006; the results are published in PAP-SZIGETI, 2007). As can be seen in *Figure 2.3*, collapsing the results of different basic skills and basic ability tests pupils performed at 57 per cent on average at the end of the one-year intervention. Compared to the 46 per cent observed for spontaneous development, this result amounts to an added value of 11 percentage points. When left to develop spontaneously only 6 per cent of students acquire the basic skills and basic abilities targeted in year 5 at the optimal level. As a result of the experiment their share increased to 12 per cent. The proportion of students reaching the advanced level without intervention is 18 per cent as opposed to 30 per cent for the participants of the experiment. Thus, through spontaneous development 24 per cent of pupils are fully pre-

pared for further development while the corresponding proportion is 42 per cent among students participating in the developmental experiment. Spontaneous development takes 24 per cent of pupils to the preparatory level and 26 per cent to the beginner level; this is 50 per cent in total. Most of these children will not progress any further (which is shown by the fact that vocational school students demonstrate a typical level of cognitive development corresponding to the average level observed among fifth and sixth year students). As a result of the one-year intervention their share decreased to 8 per cent (preparatory level) and 21 per cent (beginner level), i.e. 29 per cent in total. The added value of the intervention is therefore a 50 – 29 = 21 percentage point reduction in the share of pupils at risk of not being able to progress any further.

The data displayed in *Figures 2.2* and *2.3* reveal that the two experimental programmes contributed about 8–10 per cent a year to children's development. It is reasonable to assume, then, that if a continuous criterion-referenced education programme is implemented from the middle year of kindergarten education through to the end of year 6 of schooling and the conditions discussed above are created (including a diagnostic criterion-referenced assessment and self-assessment system), developmental stagnation can be eliminated (reduced to a minimum) and it can be possible for the overwhelming majority of children to reach advanced or optimal levels regarding the basic cognitive and motivational components of the personality. (As a reminder: at present, the optimal acquisition and mastery of not even a single basic ability, text comprehension, is realised by the end of year 8. About every fourth child leaving year 8 is functionally illiterate.)

## ■ SUGGESTIONS FOR IMPROVEMENT

Treat observed differences as differences of developmental phase.

Experimentally tested package of tools and materials for teachers and learners

Regular diagnostic criterion-referenced assessment of outcomes

1. The first prerequisite to change is to treat observed differences as differences of developmental phase. This shift in attitude will permit teachers to abandon the practice of mechanically covering course material and to turn instead to the continuous development of basic skills, traversing topics, school terms, school years and education levels. For this shift to be successful, two conditions should be met. Teachers and learners should be provided with a detailed, experimentally tested package of tools and materials, and outcomes should be regularly monitored through diagnostic criterion-referenced assessment. Primary education should be renewed and improved with the objective to dispense with grade retention and segregation while at the same time reducing extreme developmental differences and finding ways of tackling remaining differences.

The improvement of learning motivation is one of the most important conditions of change. To deliver this task the various options suggested in the rich literature on the subject should be explored (see, for instance, RÉTHY, 2003;

JÓZSA, 2007) and engaging, stimulating active learning activities should be introduced into the classroom on a regular basis (see the rich literature and experiences of a century of reform pedagogical movements). In encouraging learning motivation and active learning, special emphasis should be placed on promoting basic prosocial motives, skills and abilities (i.e. prosocial competence) by regularly using co-operative group work in education (relying on the also century-old ample literature and experiences, see for instance KAGAN, 2004). These tools are essential for the efficient development of the intellect and for an improvement in equality of opportunity. To be able to use these tools for the enhancement of the education of young pupils, a fully functional diagnostic criterion-referenced assessment and self-assessment system is needed allowing regular learner, teacher, institution, maintainer and national assessment and self-assessment, monitoring and improvement from the start of the middle year of kindergarten education to the end of year 6 of schooling. A pedagogical culture embracing the continuous criterion-referenced development of the basic components of the personality must be established.

Benchmarks should be defined and every learner should be helped until they have attained those benchmarks. This will take longer for some learners than for others. Courses need to have lexical knowledge as content, since skills cannot be developed without content. Lexical knowledge should not be viewed, however, as an end in itself but as a means of development.

2. Benchmarks to be attained by every learner should be unequivocally defined. Every learner should be helped until they have attained the required level of proficiency (criterion-referenced development). This will take longer for some learners than for others. Priority should be given to the development of the learner rather than to the transmission of course contents. That is not to say that courses do not need lexical knowledge as content: the necessary skills cannot, of course, be developed without content. Lexical knowledge should not be viewed, however, as an end in itself but as a means of development. If learners are asked to perform active, analytical tasks involving course material that they are intellectually ready to process and grasp, not only will their skills develop but they will also be more efficient in acquiring that knowledge (content based development).

Learning must be turned into an engaging, gratifying and stimulating activity. The austere character of classes should be relaxed and classrooms should be equipped with furniture that can be easily rearranged.

3. The renewal of pedagogical culture is an important precondition of successful education. Over the past fifty years several teaching methods have been developed worldwide which are sensitive to learners' level of development, promote comprehension, improve motivation and lead to the mastery of subject materials. There is, of course, a lot of variation among these progressive approaches, they are not equally efficient in every age group or every subject area. They should therefore be carefully tested in different contexts and the results should be subjected to scientific analyses. The entire process of renewal should be guided by the principle that learning must be turned into an engaging, gratifying and stimulating activity. The austere character of classes should be relaxed and classrooms should be equipped with furniture that can be easily rearranged. Learners should be allowed to move around and communicate with each other. The first few years of school should be characterised by the kind of playfulness typical of kindergartens.

Mastery learning is an approach that reverses the logic of traditional education: it is the level of acquisition that is pre-determined for all learners rather than the period of time dedicated to each topic or skill.

4. Teachers must be prepared to cope with large differences between students (differentiation) and instruction must be tailored to individual needs (personalisation), setting student-specific targets that they are ready to achieve. Mastery learning is an approach that reverses the logic of traditional education: it is the level of acquisition that is pre-determined for all learners rather than the period of time dedicated to each topic or skill. In addition to the cognitive benefits of learning from peers, the various methods of group work and co-operative activities in the classroom also enhance social skills. Misconceptions can be clarified before they could become entrenched by ensuring that concepts are grasped by each learner and triggering conceptual change at the right time. Interpretive learning can be encouraged by using the technique of cognitive maps.

5. Several methods are available that bring formal instruction closer to natural, spontaneous learning, support comprehension and arouse students' natural curiosity about the subject matter to be acquired. Complex problem solving embedded in real-life situations and problem-based learning greatly raise motivation. Independent work can also be encouraged by setting up projects with pupils working either individually or in groups. Appropriate learning habits must also be formed and learning skills must be continuously developed.

6. The renewal of primary education is contingent on finding ways to deal with the problems currently characterising the period of life before the start of school. Atypical development needs to be identified, potential problems must be diagnosed in good time and any necessary compensatory procedures must be applied. The general availability of kindergarten services is of special significance, especially for children whose immediate surroundings offer less than usual encouragement to learning.

Every child from a disadvantaged background should regularly attend kindergarten.

Besides the reasons discussed in the previous chapter, the need to prepare children for school also points to the conclusion that every child from a disadvantaged background should regularly attend kindergarten. At present children with the greatest developmental delay, who need the support of kindergarten education more than anyone, are the ones who are least likely to participate in kindergarten education.

Further improvement can be expected from the implementation of more constraining regulations concerning the current flexible system of school enrolment. The system introduced in 1985 no longer functions as originally intended, as it allows more flexibility than is reasonable. An increasing number of parents request, for instance, to keep their fully school-ready children at kindergarten for an extra year. Kindergartens accommodate the requests since they benefit from having more pupils. They also benefit from classifying difficult children as having disabilities.

A further means of reducing school-initial differences is to create elementary preventive groups (of 3–8 children) for children displaying the greatest phase

A further means of reducing school-initial differences is to create elementary preventive groups (of 3–8 children) for children displaying the greatest phase delay in the pre-school year.

delay in the pre-school year. Two versions can be envisaged: a subgroup version and a whole-class version. An elementary preventive subgroup is part of a kindergarten class and participates in daily special activities of 30–60 minutes' duration aimed at developing the basic components of the personality (basic motives, skills, and abilities, lexical knowledge and key competences). An elementary preventive class is an independent kindergarten class composed of children displaying the greatest developmental delay in their pre-school year (6–7-year-olds).

The contribution of the already excellent Hungarian kindergarten services to the development of basic skills can be further intensified by introducing continuous criterion-referenced programmes helping children's development. The most important condition of, and, at the same time, opportunity for this is enhancing the role of tales, story-telling, nursery rhymes, songs, group and individual conversations and group games. Research has revealed a developmental gap of one and a half years in cognitive and social abilities between young children who are never exposed to stories in their home environments and those whose carers read or tell stories to them almost every day (NAGY, 1980). Kindergarten children should ideally be given the opportunity to listen to favourite short tales at least twice a day (three times a day if they show a developmental delay). Teachers can benefit from a handbook series on the methodology of developing basic cognitive skills with the objective to prepare children for school (see the list of references at the end of the chapter for available volumes).

Last but not least, a further option is to adapt the curriculum and methods of the first two years of primary education to the range of developmental levels characterising children when they start school. As we have seen in *Figure 2.2*, not even a successful experimental kindergarten programme can ensure that a hundred per cent of participating children attain the level of development currently needed for success at school (in that experiment 6 per cent of the children did not attain this level and failure rates may be substantially higher in underdeveloped regions). We have not yet mentioned children attaining the intermediate level of the index: they are at risk of being unsuccessful at school and can greatly benefit from appropriate support in their first and second years.

In the first two years, regular school programmes should extend to the afternoon — possibly for all children but definitely for children from disadvantaged backgrounds — or schools should provide on-site afternoon care services. Schools have experimented with several options to relax the rigid organisation of schooling in the first few years. An increasing number of kindergartens have relinquished rigorous seating orders and inflexible timetables in favour of a more relaxed and caring atmosphere characterised by learning activities in the form of lively, energetic group games.

7. The renewal of primary education should be supported by a diagnostic assessment programme. This programme has a dual purpose: it is to assist individual development by providing learner-level feedback and its aggregated re-

A diagnostic assessment programme assists individual development by providing feedback and its aggregated results can be used to establish reference norms.

sults can be used to establish various reference norms. Diagnostic assessment as a direct tool of criterion-referenced education is a method of learner-level evaluation by definition. As such, it is reliant on the longitudinal documentation of individual progress.

An appropriate diagnostic assessment programme should therefore involve yearly testing (and more frequent assessment for certain skills, if possible) to monitor every child's progress at least until the end of year 6. It is a lengthy and complex task to set up such a feedback system. The first hurdle is to develop appropriate diagnostic assessment tools that not only identify the stage of development attained by a given student but also reveal any learning difficulties the student may have. Student-level feedback may have three types of reference measure. The results may be compared to the given students' earlier results (longitudinal, ipsative assessment). This method is used to track the pupil's actual progress over time. A second possibility is to compare results to pre-defined objectives, the criteria to be met (criterion-referenced assessment). Finally, a pupil's results may be evaluated relative to the average performance of a given population or sample (norm-referenced assessment). The proposed diagnostic programme should make use of all three types of evaluation but further experimental research is needed to define the precise function of each type.

For a diagnostic assessment programme to fulfil its function all those concerned must have confidence in the system. The objectives are not to be achieved by handing out penalties or rewards but by creating a system of incentives encouraging genuine achievements.

A diagnostic assessment programme cannot fulfil its function unless all those concerned — learners, teachers and parents — have confidence in the system. For this reason, the programme must not be used as a direct reference for penalisation or reward. A system of incentives should nevertheless be developed to encourage genuine achievements. To set up a national programme — and link data to create a longitudinal database — test results must be stored electronically. This calls for measures to prevent problems of data privacy and security.

The programme should provide schools with student-level results and feedback should indicate the extent of underperformance and the necessary compensatory actions. The assessment results should show where each learner is at and highlight the areas that need intensive development. Pen and paper tests will be sooner or later replaced by computer-assisted testing. Computerisation may allow cheaper, better and faster assessment. In 2006 the PISA test of scientific literacy could be optionally administered on computers and in 2009 an option will be available to read electronic texts. The renewal of education calls above all for an intensive professional development programme for teachers. An environment must be created where a variety of education methods are used and the assessment system is suitable for providing feedback on the efficiency of each of these methods.

8. The strategies outlined above cannot fully eliminate the possibility that the developmental delay characterising students from highly disadvantaged backgrounds and those genetically prone to slower than average development

increases to such an extent by the end of the fourth year of primary school that these children cannot avoid a developmental failure at the next stage of education. We can expect 4–6 per cent of pupils to be in this position. Since the usual solutions of retaining these pupils or classifying them as having disabilities are of questionable effectiveness, they should instead be given preventive compensatory instruction in groups of 3 to 12. Preventive instruction can take a number of different forms. For example, these students could be promoted to fifth year and take an extra class each day to focus on the prior knowledge required for the topic of the following day. For the most critical cases of developmental delay preventive instruction should be planned for an entire school year.

## ■ COSTS AND TIMING

The process of renewing primary education will probably take about ten years. It calls for steady, unremitting development rather than spectacular, all-at-once reform measures. The development process should not terminate with the end of the renewal programme: the renewed primary education should be a programme open to newly emerging technologies and methodological innovations.

As the first phase of renewal, existing diagnostic and development tools should be used systematically. There are tools in the field which are suitable for the diagnostic assessment of children about to start school or in their first years of primary education. The first goal is to introduce the systematic use of these tools: the current practice of recommendation, for instance, should be replaced by a mandatory requirement to monitor children's progress and record the results. Additionally, existing tools and tools currently under development should be widely propagated.

The currently available pen and paper tests of the diagnostic criterion-referenced assessment system are impractical and too costly to use in a nationwide assessment of pupils in years 2, 4 and 6. Computer-assisted online testing should be introduced instead, the costs of which, however, are difficult to estimate. Preparations for the introduction of online testing can commence in parallel with the initial phase of renewal.

Teachers should learn the principles of diagnostic assessment, the methods of criterion-referenced education and the above mentioned varied activity-centred methods of instruction. An intensive professional development programme is needed to achieve this goal.

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# 3 The second stage of public education and the Matura

[Benő Csapó]

Students' success in upper secondary education is a direct consequence of their accomplishments at earlier stages. The final stage therefore cannot be renewed unless the problems characterising earlier stages have been resolved. Several conditions must be met before real improvement can be achieved in upper secondary education and the implementation of reform plans is extremely time-consuming. This means that, with perhaps a few exceptions, the effects of reform measures cannot be expected to surface in the near future, possibly for decades. Considering the projected time course of the reform process, development programmes should set targets matching the standards that the countries we perceive as our models are expected to attain in ten to twelve years' time.

The expansion of public education concludes with the realisation of a comprehensive secondary education programme in which (effectively) the entire population participates. In Hungary, this aim will be achieved when everyone completes full secondary education and attains the qualifications (the *Matura*) needed for an application to higher education. The task is therefore to ensure that the most problematic 20–25 per cent of students who currently do not participate in full secondary education programmes acquire these qualifications. Full coverage secondary education is a key objective since it is one of the most important factors determining the international competitiveness of the country, but the task demands strenuous efforts.

In this chapter the second stage of public education refers to upper secondary education, which in Hungary may cover years 9–12 (age 14–18) or years 7–12 (age 12–18) depending on the type of school. This is not meant to imply that we wish to show preference for any particular model of structuring. The division of educational stages varies greatly across the countries of the world and structuring is immaterial from the point of view of achievement. What does matter is that high quality education of unvarying standards should be accessible to all. International experiences indicate that the most successful European education systems are those where differences between students are accommodated within institutions and students with different backgrounds are not referred to separate schools. Research findings and the experiences of other countries suggest that the best solution is a non-selective 12-year public education programme with no abrupt structural changes, internal branching or dead ends.

## ■ DIAGNOSIS

The process of improving the school system is hampered by several obstacles, one of which is our inclination to see the solution in reform measures.

1. *Strategies of public education renewal — the absence of long-term development plans*. The process of improving the school system is hampered by several obstacles, one of which is our inclination to see the solution in reform measures. This approach envisages dramatic large-scale changes, which are meant to settle problems for the foreseeable future and dispense with any need for adjustments. This solution leads to a model where a long static period is abruptly replaced by another, a process which does not meet the requirements of dynamic development.[1] In developed countries education systems advance at a pace that sporadic reform measures cannot support: these systems continually evolve and adapt to changing socio-economic conditions with the help of various feedback and self-regulating mechanisms. In some countries previously unimaginable intellectual effort and financial resources have been devoted to the realisation of the scientific and infrastructural conditions of progress and to the improvement of education outcomes. Given this situation, Hungary is not in a position to choose the pace of development since any delay means that it will be irrevocably left behind in the race of knowledge-based economies.

Abrupt changes tend to divide involved parties with the result that the reforms are diluted by compromises and delivered unsystematically. Large-scale reform measures take a long time to implement and may even be out of date by the time they can be introduced. This issue has recently been raised in discussions concerning the institutional structure of upper secondary education, the relationship of the core and the frame curricula, and the introduction of a two-tier *Matura*, which should or should not be a requirement for admission to higher education. Unyielding education policies and professional standpoints, the priority of considerations of prestige in defending decisions, are obstacles in the way of establishing a scientific approach to changes.

One of the problems impeding the efficient renewal of secondary education is the underestimation of the scope of necessary changes.

2. One of the problems impeding the efficient renewal of secondary education is the underestimation of the scope of necessary changes. Although the concept of a knowledge-based society invariably features among arguments for change, the tasks awaiting public education in connection with this concept are still not fully grasped. The fact that every member of a modern society must have broad-ranging knowledge and therefore, at least secondary qualifications, is not duly appreciated by the several parties directly concerned or by broader professional audiences. Although it is now generally recognised in Hungary

[1] Several fields of science have to deal with the two opposing processes of system development as illustrated by the dichotomies of evolution vs. revolution, quantitative growth vs. qualitative reorganisation, normal development vs. paradigmatic change, assimilation vs. accommodation, periodic transformation vs. continuous development, etc. The requirement of stability rightly demanded of public education is in opposition to the kind of development where tensions build up to such an extent that only radical changes can provide relief.

that every worker — including manual workers — must be equipped with the highly developed social and cognitive skills and active foreign language skills that only an efficient secondary school can provide, the necessary conclusions have not yet been drawn. As shown by a variety of indicators, the populations of countries at a higher level of development than Hungary's are characterised by higher participation rates in education and stay at school for longer (EURYDICE, 2005*a*).[2] Based on current trends, young Hungarians are predicted to spend on average 2–3 years less in education compared to their peers in more developed countries over the next decade.[3] These facts make it clear that if the Hungarian economy is to catch up with the rest of Europe, current trends must change and the education system must develop at an accelerated pace.

Nostalgic sentiments for the (elite) grammar schools of "old times" pose a further barrier to progress. As formal education has opened up to the general public, the social elite, the intellectual leaders, are no longer educated at "elite" grammar schools but at Master's courses offered by universities, and the scientific elite (not only leading scientists but also the average researcher) are trained in Ph.D. programmes. The level of education attainable by an individual is meant to be decided at an ever later stage while the school system continues to set different students on courses offering very different opportunities. For secondary education to fulfil its function, it must prepare (almost) everyone for higher education and seek to permit students to defer the decision concerning the level and type of education they wish to follow for as long as possible. This goal can be best achieved by improving students' learning skills and by imparting a broad range of knowledge. Vocational training is surrounded by a similar nostalgic sentiment. The world of workshops, where master craftsmen with many years' experience introduce their apprentices to the tricks of the trade, is irrevocably a phenomenon of the past. With the spread of digital technology a whole range of trades have disappeared and several new occupations have emerged, which simply cannot look back to a significant period of experience. Manual (blue collar) occupations and broad-ranging knowledge are not contrary terms any more and, consequently, broad-ranging knowledge can no longer be left out of vocational training. The final stage of public education has been embedded in an institution network, which has the effect of stabilising the current setup debarring changes

For secondary education to fulfill its function, it must prepare (almost) everyone for higher education and seek to permit students to defer the decision concerning the level and type of education they wish to follow for as long as possible.

[2] In the 2001/2002 school year 22.5 per cent of Hungary's population was enrolled in formal education — including all levels of education from kindergarten to university. This figure is slightly below the EU–25 average (23.1 per cent) and substantially lower than the corresponding figures observed in more highly developed countries, such as Finland (25.4 per cent), Sweden (27.3 per cent), Great Britain (29.4 per cent) and Iceland (32.3 per cent) (EURYDICE, 2005*a*, p. 127).

[3] According to EU statistical estimates, school expectancy at the age of five (the number of years a typical five year old child can expect to be enrolled in the education system during his or her lifetime) is 16.8 years in Hungary. Average school expectancy is 17.4 years in the EU–25, 19.2 years in Finland, 19.8 years in Sweden, 20.1 years in Great Britain and 18.5 years in Iceland. (EURYDICE, 2005*a*, p. 145).

of any substance. This includes the institution system supporting secondary vocational education, the complicated system of examinations, the human and organisational factors behind the educational programme leading to the examinations, the institutional framework of the examinations, the institutionalisation of secondary school entrance examinations and the compartmentalization of teacher training.

3. *There is an unclear relationship between declared principles and related legislation on the one hand and the institutional setup on the other.* One of the most frequently cited objectives of education policy is improved equality of opportunity and the country undeniably expends substantial resources on counteracting the consequences of selectivity and segregation. The Hungarian public education system, however, harbours several lawful or even explicitly encouraged mechanisms (such as specialised classes and entrance examinations) which work to create or sustain differences between schools and classes, and demonstrably, whether overtly or covertly, give rise to segregation based on students' family and social backgrounds.

The Hungarian public education system harbours several lawful or even explicitly encouraged mechanisms which work to create or sustain differences between schools and classes.

Selective and segregating mechanisms go hand in hand in the Hungarian education system with the result that the gap between schools has grown to an exceptional size by international comparison.[4] These facts have been known for years and the official remorse felt over them lives side by side with the equally official encouragement of entrance examinations. Since the publication of the first PISA results in 2001, practically nothing has been done to dispose of one of the main grounds of selection or at least to reduce the gap between different types of secondary school. The two-tier *Matura* system, which further increases inequalities related to social background, was introduced after the results of two PISA cycles had been published.

4. *The absence of standards for comprehensive public education.* The expansion of public education through the implementation of a universal 12-year school system can be characterised by two quantitative indicators. One of these is the share of students successfully completing public education (passing the *Matura*) and the other measure is the quantity of acquired knowledge. It is not enough to set the completion of secondary school and the attainment of the diploma as a target, since the diploma is worthless unless it is a guarantee of firm, demonstrated and useful knowledge. If the sole focus is on the number of graduating students, there is a risk that standards will have to be lowered to increase school completion rates. If the *Matura* certificate is not tied to pre-

[4] In all the three PISA assessment cycles so far (2000, 2003 and 2006) and in all domains (reading, mathematical and scientific literacies), Hungary was among the most selective education systems (ranking between 2nd to 5th). However, with regard to the degree to which between-school differences are explained by students' social status, the situation is undoubtedly the worst in Hungary. Out of 57 participating countries, this index was the poorest in Hungary in PISA 2006 (OECD, 2007).

To maintain the quality of knowledge which the completion of secondary education is meant to stand for (and which the *Matura* represents), a detailed set of standards and a reliable system of assessment need to be developed.

determined standards and objectives, it will inevitably depreciate as the knowledge behind it declines.[5]

To maintain the quality of knowledge which the completion of secondary education is meant to stand for (and which the *Matura* represents), a detailed set of standards and a reliable system of assessment need to be developed. Although the new framework of objectives for the *Matura* and the associated test bank constitute a step towards such a system, the set of standards and the set of measures aimed at preventing the depreciation of secondary school diplomas do not form a coherent system. The completion of secondary education on the one hand, and the *Matura* and its assessment scales on the other should be aligned with international assessments.[6] It could be stated in this spirit, for instance, that the public education programme must ensure that every student attains levels 2–3 as defined by the PISA surveys in reading, mathematical and scientific literacy and acquires foreign language competence corresponding to levels *B1* and *B2* of the Common European Framework.

5. *Hungarian education is exceptionally selective, even by international comparison.* In a comprehensive non-selective school system everyone has an equal chance of being admitted to any one institution; students from different backgrounds are not segregated into separate schools, classes or groups on a permanent basis. Schools and classes are characterised by a heterogeneous composition and students from various backgrounds are offered similar academic and social environments. Thus, there is a unified institutional (school or class level) framework, which includes, or which is complemented by, the individualised, differentiated support of students, including programmes compensating for disadvantages or supporting the gifted as necessary.

Student diversity is one of the most self-evident attributes of an education system. Individual countries vary with regard to the extent of student diversity (the total variance of a given measured trait). Hungarian society — and thus students' performance — shows relatively little variation. In 2006 the variance of Hungarian students' scores on the test of scientific literacy was 86 per cent of the OECD average. Some countries are characterised by far more heterogeneous populations; in the United States and in Great Britain, for instance, the corresponding variance is over 120 per cent of the OECD average (OECD, 2007*a*). A lot depends on the way the school system treats these differences, however. This is best examined from two closely related perspectives.

[5] The relative value of the diploma also declines with an increase in the number of people attaining it even if examination standards are maintained at a steady high level.

[6] One of the practical benefits of participation in international assessments is that the results can be used to audit and accredit national assessment programmes. Linking national and international assessment systems can be a way of preventing score inflation, i.e., the phenomenon when, for various reasons — such as "teaching for the test" — test scores increase faster than the real level of knowledge.

One factor to consider is the tendency of the system to direct different students to different institutions, i.e., to guide them toward distinct developmental paths. This issue is the subject of an extensive range of literature discussing a variety of solutions from grouping students according to abilities (ability grouping, streaming) to assigning students to different types of school or training programme (tracking).[7] It is a common belief that education is more effective if students with different abilities are taught in separate groups, where each student can receive the education best suited to him or her. Research has revealed, however, that abilities develop at varied rates and the level of abilities measured at a given point is a very weak predictor of future abilities. The ability-based placement of students at an early stage of development will therefore turn out to be the wrong choice for the great majority of students.[8] It has also been found that a decision to assign a student to a low ability group or a low prestige school tends to be based on the social status and influence of the family rather than on actual abilities as originally declared. Students in low-track environments tend to perform far below expectations, which is detrimental to the overall efficiency of the education system. Underachievement can be attributed to several factors, including a negative shift in self-concept, the phenomenon of self-fulfilling prophecies, decreased motivation and poorer resources (poorer school infrastructure, teachers with lower levels of training and motivation, etc.). Low-track groups may generate anti-learning, anti-school and anti-social subcultures, thus manifoldly exacerbating the initial problem, i.e., the difficulties stemming from poorer academic performance. But the most unexpected effect of selectivity is that it fails to bring out the best in students whose abilities, or relatively influential parents, got them into high-ability groups or high-prestige schools.[9]

The practice of ability-based placement of students at an early stage of development is detrimental to the overall efficiency of the education system; it even fails to bring out the best in students who have been assigned to high-prestige schools.

The Hungarian school system displays every possible symptom of selectivity and, as shown by international surveys, outcomes are correspondingly poor.

The Hungarian school system displays every possible symptom of selectivity and, as shown by international surveys, outcomes are correspondingly poor. The latest demonstration of this fact comes from the PISA survey conducted in 2006, where between-school variance was found to amount to 60 per cent in Hungary compared to the OECD average of 33 per cent. The most revealing measure of the selectivity of the school system is the ratio of the two variability figures: between-school variability observed in Hungary accounts

[7] For a discussion of the cultural determination of tracking and of the disadvantages of the system see YONEZAWA ET AL. (2002) and LETENDRE ET AL. (2003).

[8] It has been shown, for instance, that of the top 3.5 per cent of fourth year pupils (which approximately corresponds to the share of pupils enrolling in 8-year secondary schools after their fourth year at primary school) only 20 per cent can be expected to be among the top 3.5 per cent in year 12 (CSAPÓ, 2002).

[9] This phenomenon is known as the Big-Fish-Little-Pond (BFLP) effect, which is a consequence of the fact that if high-end students are brought together in a group, they cannot all be among the best in their new group. Most of these students can therefore no longer experience the success of outstanding performance, which may lead to a sense of failure, decreasing motivation and various developmental anomalies among gifted students who are typically more sensitive than their peers. The reunification of Germany provided an interesting opportunity to study this phenomenon by comparing the Eastern (comprehensive) and Western (selective) school systems (MARSH ET AL., 2001).

for 70 per cent of total variability. These facts are accompanied by average or even lower than average performance (OECD, 2007*a*).

The PISA surveys have also demonstrated, however, that selectivity can be substantially reduced by firm education policies and perceptible improvement can be achieved in a short period of time. In Poland, around the turn of the millennium a comprehensive school system was introduced in secondary education. The PISA survey of 2006 reveals that between-school variability of scientific literacy is only 14 per cent in Poland, which is less than a quarter of the Hungarian figure. The reduction of selectivity is clearly reflected in student performances. Variation between schools fell by two thirds between 2000 and 2003, which was accompanied by a 17-point improvement in reading literacy. The improvement was explained by a reduction in the proportion of low performing students. The results of the assessments in 2006 show a further 11-point improvement, most of which was now due to an increase in the proportion of high performers.

A second factor to consider in tackling the problem of variation is ways of meeting the needs of students whose abilities deviate from typical performers' either because they develop much more slowly than others or because they perform much better. As we have seen, selectivity and segregation are not the right way of meeting the needs of either group in Hungary. Some improvement can be achieved by decreasing selectivity but a good school system must do more than that to support atypical children. The following paragraphs look at the problems which are especially relevant to these two groups.

The added benefits associated with heterogeneous groups of learners have received little attention — and are therefore virtually unknown — in Hungary. These include cognitive benefits (such as the extra knowledge gained by explaining the material at hand to peers) and affective gains, both of which should be carefully investigated. Heterogeneous groups offer especially notable opportunities for personal and affective development (regarding, for instance, sense of identity, offering and accepting help, experiences of being different, tolerance and empathy). In addition to the universal benefits of discovering the complexity of society and improving social cohesion, research efforts should be directed to the more specific advantages potentially offered by a heterogeneous environment for those who are more advanced than usual or are from a privileged social background. To win the public support needed to implement a comprehensive school system, the results of the investigations, and information concerning the overall social benefits of heterogeneous schools, should be disseminated not only among professionals but also among the general public.

Compensatory support for underperformers is the weakest point of Hungarian schools and it is also the area with the greatest potential for improvement.

6. *The final years of secondary education present insurmountable obstacles to many students*. Compensatory support for underperformers is the weakest point of Hungarian schools and it is also the area with the greatest potential for improvement. The current mechanisms underlying the operation of schools are directly counteractive to compensatory instruction (upward levelling).

Students tend to drop out of school sometime during years 7–12 and schools do not have any established tools to diminish or prevent dropping out. This gives rise to a paradoxical situation where it is precisely the slowest learners who — for various reasons — attend school for the shortest period of time. It is these students who should be kept in the education system for the longest to enable them to acquire a level of knowledge that can be put to practical use. Hungary, however, does not have a workable model for this goal. Young people not showing academic progress are instead directed to vocational training programmes. The problem is firstly, that this does not meet the demand for well-educated, flexible, trainable and re-trainable manpower and secondly, that the strategy has proved not to work in practice. Faced with repeated failures, students become alienated from learning and cannot achieve success in vocational training either.

If a school accepts variability, it must deal with the consequences of this decision at an institutional level. Students whose abilities are no more than one standard deviation below the mean can be taught in usual classroom settings with methods designed for typical students although those at the border of this range require special attention. Together with students at most one standard deviation above the mean, they constitute the middle two-thirds of the population.

Students whose intellectual development is two standard deviations below the mean are classed as having special educational needs. Around 14 per cent of students are found in the range between these two threshold values; if they were distributed evenly across schools and classes, teachers would need to deal with 3–6 difficult-to-teach students in an average class. The proportion of these students is around 20 per cent in the current school system, where differences are allowed to grow and knowledge deficiencies are multiplied.[10] Methods of individual instruction in regular classes and in special sessions must be developed to enable these students to progress with their peers in the main stream of education. An education assessment system suitable for student-level diagnostic feedback could warn teachers of perilously poor performance every year. These warning signals could be linked to recommendations for intervention. Students showing slower than typical development are in the greatest need of learning activities beyond frontal instruction. Differentiated education calls for a varied range of methods, classroom designs that allow for flexible rearrangement to suit individual, pair and group work and personalised instruction continuously adapted to the progress of students. In a past era of Hungarian public education, one-class schools developed instructional methods suitable for teaching different years of students in a single class. These methods, however, have almost entirely disappeared from educational culture and the tradition can only be revived through purposeful planned development efforts.

Students showing slower than typical development are in the greatest need of learning activities beyond frontal instruction.

[10] With a successful delivery of programmes aimed at renewing the first stage of primary education this share can be substantially reduced, to an average of 1–2 students per class in the best case. See the chapter on primary education in the present volume.

Underachievement does not necessarily have cognitive origins; failures at a young age can be the result of a family background unsupportive of learning, and for older students they may be explained by a lack of motivation. It is well known that grade retention is highly unlikely to bring about significant improvement. A remedial year inserted between educational stages may, however, be a viable solution for students showing exceptionally slow progress. This option — albeit with a different function — has a tradition in the Hungarian school system. Practical implementation is constrained by class-size requirements, which means that only secondary schools are likely to be in a position to consider this option. Another problem is that currently no provision is made for students characterised by slow progress to successfully complete their secondary education according to a personalised curriculum possibly extending to one or two extra years but avoiding the stigma of grade retention.

The causes of dropping out of school have been investigated across a series of disciplines and research fields including developmental psychology, cognitive science, motivation research and educational social psychology. The results of this research have had barely any effect on educational practices in Hungary. Using the range of tools emerging from this large body of knowledge and through a careful analysis of international research and development programmes and experiences (the creation of heterogeneous groups through detracking and diversification), teaching methods could be developed aimed at adjusting classroom practices to the needs of students characterised by slow progress and learning difficulties.

7. *The Hungarian school system similarly fails to guarantee that high-achieving students reach their full potential*. The most commonly cited argument for a selective education system is that society needs a narrow layer of very highly educated people, whose needs can be best met by separating them from students learning more slowly and with more difficulty. This hypothesis is not supported by empirical evidence. First, studies evaluating the effects of selectivity indicate that permanent separation and the creation of homogeneous groups are not the most efficient means of supporting gifted students. Second, not only the average performance of Hungarian students remains below expectations in an international context but Hungary also has a lower proportion of high achievers than other countries.

Permanent separation and the creation of homogeneous groups are not the most efficient means of supporting gifted students.

The PISA surveys define six levels of competency and also describe performance failing to reach Level 1, thus giving a total of seven distinct levels. In the survey of 2006 only 0.6 per cent of Hungarian students attained Level 6, which is less than half of the OECD average (*Table 3.1*). In the non-selective Finnish school system, where there are minimal differences between schools, 3.9 per cent of students performed at this level, which is six times more than the Hungarian figure. Finnish students came out on top with an average of 563 score points, while the score of 504 points achieved by Hungarian students was around the OECD average. It should be noted that some countries

[TABLE 3.1] THE DISTRIBUTION OF STUDENTS ACCORDING TO LEVEL OF SCIENTIFIC PROFICIENCY AS MEASURED BY THE PISA SURVEY OF 2006 IN OECD COUNTRIES (PER CENT)

| COUNTRY | LEVEL OF PROFICIENCY | | | | | | |
|---|---|---|---|---|---|---|---|
| | Below 1 | 1 | 2 | 3 | 4 | 5 | 6 |
| Australia | 3.0 | 9.8 | 20.2 | 27.7 | 24.6 | 11.8 | 2.8 |
| Austria | 4.3 | 12.0 | 21.8 | 28.3 | 23.6 | 8.8 | 1.2 |
| Belgium | 4.8 | 12.2 | 20.8 | 27.6 | 24.5 | 9.1 | 1.0 |
| Canada | 2.2 | 7.8 | 19.1 | 28.8 | 27.7 | 12.0 | 2.4 |
| Czech Republic | 3.5 | 12.1 | 23.4 | 27.8 | 21.7 | 9.8 | 1.8 |
| Denmark | 4.3 | 14.1 | 26.0 | 29.3 | 19.5 | 6.1 | 0.7 |
| Finland | 0.5 | 3.6 | 13.6 | 29.1 | 32.2 | 17.0 | 3.9 |
| France | 6.6 | 14.5 | 22.8 | 27.2 | 20.9 | 7.2 | 0.8 |
| Germany | 4.1 | 11.3 | 21.4 | 27.9 | 23.6 | 10.0 | 1.8 |
| Great Britain | 4.8 | 11.9 | 21.8 | 25.9 | 21.8 | 10.9 | 2.9 |
| Greece | 7.2 | 16.9 | 28.9 | 29.4 | 14.2 | 3.2 | 0.2 |
| HUNGARY | **2.7** | **12.3** | **26.0** | **31.1** | **21.0** | **6.2** | **0.6** |
| Iceland | 5.8 | 14.7 | 25.9 | 28.3 | 19.0 | 5.6 | 0.7 |
| Ireland | 3.5 | 12.0 | 24.0 | 29.7 | 21.4 | 8.3 | 1.1 |
| Italy | 7.3 | 18.0 | 27.6 | 27.4 | 15.1 | 4.2 | 0.4 |
| Japan | 3.2 | 8.9 | 18.5 | 27.5 | 27.0 | 12.4 | 2.6 |
| Korea | 2.5 | 8.7 | 21.2 | 31.8 | 25.5 | 9.2 | 1.1 |
| Luxembourg | 6.5 | 15.6 | 25.4 | 28.6 | 18.1 | 5.4 | 0.5 |
| Mexico | 18.2 | 32.8 | 30.8 | 14.8 | 3.2 | 0.3 | 0.0 |
| Netherlands | 2.3 | 10.7 | 21.1 | 26.9 | 25.8 | 11.5 | 1.7 |
| New Zealand | 4.0 | 9.7 | 19.7 | 25.1 | 23.9 | 13.6 | 4.0 |
| Norway | 5.9 | 15.2 | 27.3 | 28.5 | 17.1 | 5.5 | 0.6 |
| Poland | 3.2 | 13.8 | 27.5 | 29.4 | 19.3 | 6.1 | 0.7 |
| Portugal | 5.8 | 18.7 | 28.8 | 28.8 | 14.7 | 3.0 | 0.1 |
| Slovakia | 5.2 | 15.0 | 28.0 | 28.1 | 17.9 | 5.2 | 0.6 |
| Spain | 4.7 | 14.9 | 27.4 | 30.2 | 17.9 | 4.5 | 0.3 |
| Sweden | 3.8 | 12.6 | 25.2 | 29.5 | 21.1 | 6.8 | 1.1 |
| Switzerland | 4.5 | 11.6 | 21.8 | 28.2 | 23.5 | 9.1 | 1.4 |
| Turkey | 12.9 | 33.7 | 31.3 | 15.1 | 6.2 | 0.9 | 0.0 |
| United States | 7.6 | 16.8 | 24.2 | 24.0 | 18.3 | 7.5 | 1.5 |
| OECD average | 5.2 | 14.1 | 24.0 | 27.4 | 20.3 | 7.7 | 1.3 |

[SOURCE] OECD (2007*a*).

are characterised by a higher proportion of outstanding students even though their average results are lower than Hungary's. In the United States (with an average of 489 points), for instance, 1.5 per cent of students reached Level 6 of the scale. Looking at the proportion of Level 5 performances, the 6.2 per cent figure observed for Hungary is only a third of the Finnish figure (17.0 per cent) and remains below the international average (7.7 per cent). These fig-

The Hungarian school system fails to ensure that top performing students reach their full potential and thus produces a very small proportion of students with outstanding performance.

ures give further support to the observation that the Hungarian school system fails to ensure that top performing students reach their full potential and thus produces a very small proportion of students with outstanding performance. Even those Hungarian secondary schools which are in a privileged position and enforce strong selection criteria in admitting students fail to show outstanding performance in an international context. The data reveal general problems in science education and critical deficiencies in training new generations of professionals in science and engineering.

The top 15–20 per cent of the student population is characterised by abilities so far above the average that teaching methods tailored to typical needs cannot offer optimal support for them. Education experiences suggest — in agreement with the results of the PISA surveys — that the permanent separation of outstandingly gifted students is not the most felicitous solution in several respects. A better solution is to allow these students to participate in programmes where their exceptional skills can bring their reward. As a positive deviation from the average may take several different forms, a variety of individual approaches are needed in offering support.

The Hungarian school system is highly fragmented with respect to settlement geography. Almost a fifth of the population live in the capital city and a further fifth live in small villages where the number of children born per year is not large enough to fill a single classroom. Given these conditions, a highly diverse system must be established in order to create equal opportunities and enable every child to complete secondary education. A network should be set up for schools offering different years of study and a system of collaboration between them should be developed. Pupils attending small schools should be given the opportunity to stay together when moving on to the next stage of education. Schools should dispense with selection procedures and admit all students living in their catchment area and wishing to study there. Students should be given the opportunity to progress within the system without encountering any kind of selection or segregation and to receive the support needed for their optimal development. Through an enhanced relationship between schools and parents, parents must recognise that the answer to their rightful expectations — that their children should receive the best possible education — is to be sought within the system. It must be ensured, at the same time, that the comprehensive school system meets these expectations. Parents' rights to choose their children's school can then be granted without the risk of jeopardising the programme of non-selective comprehensive education. Schools cannot be expected to embrace this programme unless they are offered explicit models. Arguments for the widespread use of such models should of course be based on evidence of their efficiency.

Students displaying outstanding special talent in a particular subject should be allowed to progress at a faster pace in that subject, and follow a personalised course of study and take examinations in advance of their peers. The option of sitting the *Matura* early has already introduced an element of this kind in the system. In some countries students whose overall intellectual develop-

ment significantly exceeds the typical level are allowed to complete the various stages of education faster than the normally prescribed period and may start higher education at a younger than typical age. The Hungarian system makes no provision for this even though there is a great need for flexible options for outstandingly gifted students with regard to the transition from secondary to higher education. It is dictated not only by individual but also by broader public interests that gifted students should be allowed to quickly leave their compulsory studies behind and devote the most receptive and creative period of their lives to genuinely productive work.

8. *Learning does not end with secondary education*. In countries where lifelong learning is a realistic objective for most of the population, secondary education is no longer expected to provide self-contained, accomplished knowledge. With the expansion of higher education general knowledge subjects are given greater weight in undergraduate programmes. This trend can be observed in tertiary vocational training as well. In Hungary secondary education has not yet embraced this approach, thus the task of preparing students for further studies and for the acquisition of further knowledge while shaping the cognitive (learning skills) and affective (inquiry, motivation) conditions needed for making progress is not assigned sufficient significance.

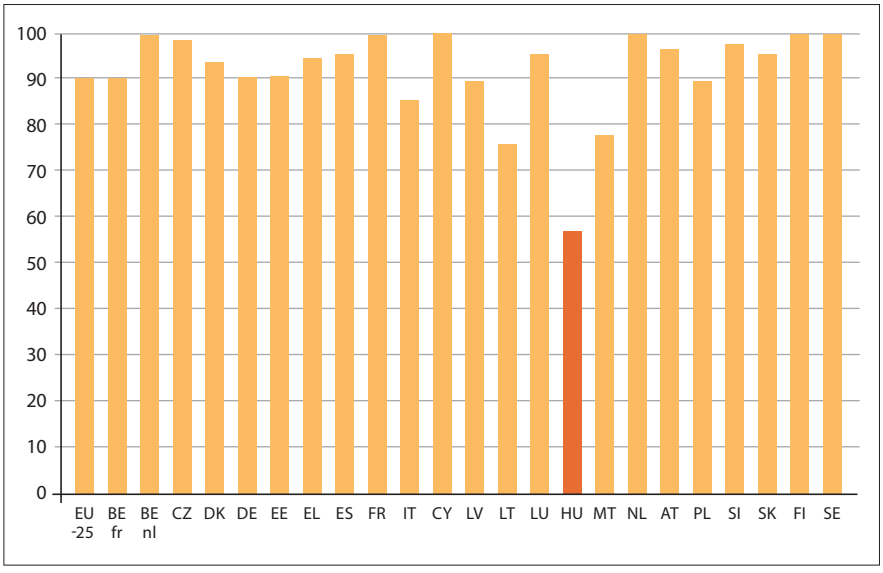
Secondary education has not yet embraced the approach that students should be prepared for further studies and for the acquisition of further knowledge.

Local and international assessments have indicated for decades that there are serious problems with the quality of Hungarian students' knowledge: although secondary school students are required to acquire a vast range of knowledge, they cannot apply this knowledge to solve practical problems beyond the school context. The PISA Expert Groups have designed a theoretical framework for assessing the new concept of literacy — knowledge that can be put to practical use and has social value. In Hungary, however, this concept has not been widely explored and no evidence-based attempts have been made to plan the necessary action programmes. An education programme focusing on competencies has been launched without a broad professional consensus concerning its objectives and methods. In public discourses on education, the teaching of scientifically structured factual knowledge is commonly contrasted with skills development, overlooking the fact that the most appropriate means of improving skills is to encourage the meaningful, interpretive analysis of scientific knowledge.[11] There is a danger that, misinterpreting the message of the PISA and other international surveys, education will shift its focus to an unorganised, ill structured, simplified body of knowledge. Teaching practical knowledge through a direct, reproductive approach is even less likely to help improve literacy and promote applicable knowledge than curricula based on

[11] The PISA survey of 2000 included a special assessment of learning strategies and habits. The results revealed that Hungarian students preferred learning methods focusing on memorising and reproducing subject matter knowledge. Strategies involving analytical thinking or an exploration of cause-and-effect relationships were rarely used.

[FIGURE 3.1]
Percentage of students learning English at secondary school in the countries of Europe (per cent)

[SOURCE]
EURYDICE (2005*b*) p. 52.




*Abbreviations* EU–25: EU total, BEfr: Belgium (French), BEnl: Belgium (Dutch), CZ: Czech Republic, DK: Denmark, DE: Germany, EE: Estonia, EL: Greece, ES: Spain, FR: France, IT: Italy, CY: Cyprus, LV: Latvia, LT: Lithuania, LU: Luxembourg, HU: Hungary, MT: Malta, NL: Netherlands, AT: Austria, PL: Poland, SI: Slovenia, SK: Slovakia, FI: Finland, SE: Sweden.

disciplinary subject matter knowledge. The most important element of change is the renewal of the culture of instruction, specifically, the strengthening of elaborative, interpretive learning methods permitting a deeper understanding of scientific knowledge and the transfer of this knowledge to novel situations and problems (e.g., adopting the approaches of meaningful learning, teaching for understanding and teaching for transfer).

An increasing number of specialised theoretical or practical subjects are offered in public education, which is inconsistent with the (appropriate) objective of reinforcing the general education function of secondary schools.

An increasing number of specialised theoretical or practical subjects are offered in public education, which is inconsistent with the (appropriate) objective of reinforcing the general education function of secondary schools. The role of core subjects, which equip students with general knowledge and help develop their personalities (Hungarian language and literature, mathematics, science, history, social sciences, foreign languages, art and physical education), should be reinforced in an effort to improve essential learning and thinking skills and to equip students with in-depth knowledge with wide ranging applicability. An especially acute problem is that notwithstanding concentrated attention and efforts, Hungary's position in the international scale of foreign language education has not improved to a significant extent. Hungary comes last, for instance, in terms of the proportion of secondary school students learning English: 57.6 per cent as opposed to an average of 90.5 in the EU–25 countries and approaching 100 per cent in some countries (*Figure 3.1*).

The position of vocational training is fraught with contradictions; the relationship between public education and vocational training is ill-defined, voca-

tional training programmes incorporated into public education struggle with serious problems. Secondary vocational training fails to keep up with labour market changes or to adapt to the demands of modern knowledge management. It does not maintain the right balance between general knowledge of broad applicability and skills specific to a given vocation and workplace — a heavy emphasis being placed on the latter.

9. *Intellectual considerations have always been given priority in efforts to improve public education and this is especially true for secondary education*. This intellectual aspect is naturally reinforced by the indicators of international assessments and by recent development programmes (assessment and evaluation, education for the gifted and the reform of the *Matura*). The question of "instruction and/or education" has featured in professional debates for decades, mostly arriving at the conclusion that education must be given priority — and mostly to no avail. The inadequacy of the educational function of secondary schools gives rise to increasingly heavy tensions. There has been a proliferation of discipline problems and the negative experiences of recent years concerning the development of emotions, values, attitudes and motivation suggest that the affective effects of schooling leave a lot to be desired.

It is evident that neither a repeated listing or description of surfacing symptoms nor an offering of philosophical analyses of the issue will lead to a solution to these problems. The marginalisation of the affective side of educational goals is not a new phenomenon.[12] With the "cognitive revolution" emerging in the second half of the 20th century, the gap in the availability of scientific evidence for methods of supporting cognitive vs. affective development further widened. This process intensified as the findings of cognitive science were gradually incorporated into tools of education development, such as instructional materials or the theoretical frameworks of assessment programmes.

One of the consequences of public education becoming widely accessible is that secondary schools must be prepared to work with difficult students, who, in the past, dropped out of school for various reasons before they could enroll in secondary education. To achieve improvement, major research and development programmes should be launched and the causes should be carefully investigated. Thus far, however, we have not even completed a comprehensive scientific survey of problems or mapped out possible solutions. As indicated by the experiences of some countries, art and physical education may be part of the solution.

[12] When in the 1950s Bloom's initiative started the development of a set of taxonomies of educational objectives and evaluation, educational objectives were assigned to three main domains: the cognitive, affective and psychomotor domains. (This division roughly corresponds to the century-old Hungarian distinction between intellectual, emotional and physical education.) The taxonomy of the cognitive domain was quickly completed and had a major international impact — it played an important role in the first assessment programme of the *International Association for the Evaluation of Educational Achievement* (IEA). The taxonomies of the two remaining domains were completed at a later stage and had barely any practical consequences.

The *Matura* is in urgent need of modernisation.

10. *The transformation of the Matura must be continued*. The structure of the *Matura* did not undergo any significant changes for more than one and a half centuries and is in urgent need of modernisation. Major problems appeared around the mid 1980s, when it became clear that the *Matura* failed to fulfil its functions both as a reliable certificate of secondary education and as a, at the time much needed, filter to higher education entry. Reform plans were first drawn up a decade later and after another decade had passed the new standardised two-tier *Matura* was introduced.[13] The main features of the new system include standardised tests that do not vary between school types and the availability of standard and advanced level examinations, the latter of which are school-external. It is compulsory to take examinations in Hungarian language and literature, mathematics, history and a modern foreign language. A further 130 plus subjects are available to choose from.

The implemented reform of the *Matura* constitutes a significant step towards standardisation; the reliability and objectivity of the examinations have been greatly improved. However, the 150 year-old process of evolution in Hungarian education did not stop when problems were first identified — further major changes have taken place during the past two decades. The expansion of education, for instance, has extended to higher education. Hungary has adopted the three-stage higher education structure with the result that neither the final level nor the contents of higher education studies are decided when a student is admitted. That is, it is now pointless to force students to choose specialisations at secondary school as the new *Matura* demands.[14] An early decision is likely to be influenced by haphazard factors and to reflect parents' ambitions and plans rather than students' actual knowledge and competencies. It is pointless to force a decision at an age when students are burdened with the many developmental challenges of adolescence and are at very different stages of social and emotional *matura*tion. The two examination levels of the current system introduce another selection factor into public education, where clearly not only abilities but also social status play a role.

The *Matura* system forces students to choose specialisations earlier than necessary.

The two-level structure has failed to fulfil expectations concerning its student selection function for higher education.

The two-level structure has failed to fulfil expectations concerning its student selection function for higher education. The plan was originally conceived at a time when there was heavy competition for admission to higher education.

[13] For a Hungarian language overview of the new Matura programme and the first experiences of the programme, see HORVÁTH & LUKÁCS (2006).

[14] Early specialisation is one of the most heavily criticised elements of the new system. Hoffman (2005) writes, for instance, "In most European countries subject-specific entrance examinations were abolished a few years ago as part of the Bologna process. The focus of assessment has shifted to general knowledge and skills and aptitudes required for the successful completion of higher education. In sharp contrast with international trends, the new advanced level examinations encourage narrow-focus learning with the aim to master "admission subjects". Moreover, the system has the effect of prompting students to concentrate on mastering the two "admission subjects" at the inevitable cost of neglecting their studies of general knowledge from as early as the age of 16." (HOFFMANN, 2005, p. 133)

It appeared to be a rational option to replace entrance examinations by a programme of advanced school leaving examinations. In the meantime, however, higher education has opened its gates to a much wider audience and most higher education institutions have chosen — in their own best interest — not to require advanced level examinations for admission. In line with the new three-level structure of higher education, student selection takes place within higher education: it is decided at the end of the three-year undergraduate programme whether a student can continue his or her studies at Master's level. The relationship between the two levels of the *Matura* is not clearly defined concerning differences either in terms of examination content (the nature of knowledge assessed by the standard level as opposed to the advanced level) or in terms of quantity. Admission to higher education institutions is based on a score point system, where advanced level examinations are worth extra points. This method of crediting, however, involves an unreliable conversion process and fails to reflect the (possible) knowledge discrepancy between the two levels.[15]

The highly heterogeneous system of *Matura* subjects is not consonant with either the overall direction of development in public education or the demands of higher education.

The highly heterogeneous system of *Matura* subjects characterising the Hungarian school leaving examination programme is not consonant with either the overall direction of development in public education or the demands of higher education. The choice of more than 130 examination subjects adds unjustifiable complexity to the *Matura* making it incomprehensible and unnecessarily costly. A reliable assessment of core competencies and general knowledge would offer final year students a far more accurate indication with regard to the subject areas they should choose for their further studies and it would provide a far more reliable test of suitability for higher education or tertiary vocational training institutions than the results of a specialised examination. The absence of natural sciences from the list of compulsory examination subjects gives rise to a major conflict. It has serious consequences for professions in engineering and science: the student base of these higher education courses has substantially diminished.

The student base of engineering and science programmes of the universities has substantially diminished.

For the purposes of selection for higher education institutions, a considerably smaller number of examination subjects would be sufficient. The American Scholastic Aptitude Test (SAT, 1926–), for instance, consists of only two components: a verbal and a mathematical section. It is essentially a test of general aptitude for using knowledge and, as demonstrated by SAT-related statistical analyses, has successfully fulfilled the function of higher education entrance examinations. It is not applicants' familiarity with specific subjects that needs to be assessed by entrance examinations but whether applicants possess

[15] The two-tier *Matura* has been criticised by higher education instructors as well. "Since universities have decided to accept standard level examinations, the two levels have become essentially meaningless. If there are two levels, it should be ensured in some way that they fulfil their original functions. And if there is no way of doing that, the two-level system should be relinquished; there is no point in overcomplicating the system for nothing." (TÓTH, 2006, p. 206)

[TABLE 3.2] EXAMINATION APPLICATIONS IN THE *MATURA* PERIOD MAY–JUNE 2007

| SUBJECT | STANDARD | ADVANCED | TOTAL | PERCENTAGE OF ADVANCED RELATIVE TO ALL APPLICATIONS | PERCENTAGE OF ADVANCED RELATIVE TO ALL SCHOOL LEAVERS |
|---|---|---|---|---|---|
| Hungarian language and literature | 92,826 | 4,302 | 97,128 | 4.63 | 101.69 |
| Mathematics | 91,496 | 4,088 | 95,584 | 4.47 | 100.08 |
| History | 87,171 | 8,799 | 95,970 | 10.09 | 100.48 |
| English language | 45,808 | 3,900 | 49,708 | 8.51 | 52.04 |
| German language | 29,013 | 1,944 | 30,957 | 6.70 | 32.41 |
| Informatics | 25,118 | 1,307 | 26,425 | 5.20 | 27.67 |
| Geography | 20,967 | 591 | 21,558 | 2.82 | 22.57 |
| Biology | 16,161 | 5,254 | 21,415 | 32.51 | 22.42 |
| Physics | 66,68 | 1,353 | 8,021 | 20.29 | 8.40 |
| Chemistry | 3,230 | 1,822 | 5,052 | 56.41 | 5.29 |
| Economics | 3,403 | 652 | 4,055 | 19.16 | 4.25 |
| Physical education | 3,263 | 146 | 3,409 | 4.47 | 3.57 |
| Marketing | 2,417 | 221 | 2,638 | 9.14 | 2.76 |
| French language | 1,391 | 647 | 2,038 | 46.51 | 2.13 |
| Art and visual culture | 1,634 | 49 | 1,683 | 3.00 | 1.76 |
| Tourism | 1,377 | 177 | 1,554 | 12.85 | 1.63 |
| Art history | 1,498 | 29 | 1,527 | 1.94 | 1.60 |
| Social science | 1,420 | 81 | 1,501 | 5.70 | 1.57 |
| Law enforcement | 1,270 | 0 | 1,270 | 0.00 | 1.33 |

[SOURCE] Based on data by ÖTVÖS (2007).

the skills needed for academic success in their studies. SAT subject tests have recently been introduced in literature, (US and world) history, mathematics (at two different levels covering the same topics), science (biology, chemistry and physics) and languages.

We have so far looked at the two main problems characterising the *Matura* — its two-level structure and the proliferation of examination subjects — from a theoretical point of view. The data presented in *Table 3.2* reveal that, in terms of the number of applicants, the two problematic features do not appear to have any practical advantages either.

While test development for more than 130 *Matura* subjects has a considerable cost, most of these subjects are chosen by only a few examinees.

*Table 3.2* summarises application data from 2007 displaying examination subjects with more than 1000 applicants. The first notable feature of the data is that only a total of 19 subjects met the frequency criteria, i.e., each of the remaining subjects was chosen by less than one per cent of all examinees. A total of 189 examination subjects (including foreign language versions) were chosen by students, of which 116 subjects were taken by fewer than 50 people.

The standard-level physical education test, for instance, was taken in English by 3 people, in German by 2, in Romanian by 1, in Serbian by 4 and in Slovakian by 1.

Few of those taking the test choose an advanced examination in compulsory subjects.

Another notable finding is the low ratio of advanced level examinations in compulsory subjects: in Hungarian language and literature and in mathematics the proportion of advanced level examinations remained below five per cent. This means that only one in 20 of those taking the test chooses an advanced examination in these subjects. Since the choice between the two levels is left to the student and does not depend on any prior assessment, there is no guarantee that it is the most gifted and best prepared five per cent of students who take the advanced tests. History is the only compulsory subject where the advanced examination was chosen by at least 10 per cent of students; even the two most popular languages, English and German, were taken at the standard level more than 90 per cent of the time.

Our third comment concerns the very low proportion of natural science subjects. Only five per cent of students applied to take an examination in chemistry and eight per cent in physics. (These two subjects are in fact known to be the least popular among students in every year of public education.) The figures clearly indicate that science subjects are at a considerable disadvantage in secondary education and the student base of science and engineering higher education courses has critically diminished.

Only one more subject should be added to the current catalogue of compulsory examination subjects (mathematics, Hungarian language and literature, history and a foreign language) to create a school leaving examination system that, while preserving Hungarian traditions, conforms to international trends: this subject is science. Scientific literacy is regularly assessed both by PISA and by TIMSS surveys, and the PISA's theoretical framework unequivocally views this area as part of general knowledge in modern societies.

The contents of examination subjects are decided unsystematically, with no reference to scientific norms, and the accreditation process fails to guarantee the necessary standards across all subjects.

The choice of examination subjects should be reconsidered. The current (constantly expanding) list of more than 130 subjects is unnecessary, costly and fails to meet the above requirements. The contents of examination subjects are decided unsystematically, with no reference to scientific norms, and the accreditation process fails to guarantee the necessary standards across all subjects. It is clearly impossible to develop a scientifically sound examination system for such a large number of subjects within reasonable cost limits. Public education cannot be expected to document these specialised areas of knowledge at an examination level. Moreover, there is no need for prospective higher education students to possess the kind of specialised knowledge that can be acquired during a single college course. They do, however, need to possess the general abilities that will enable them to continue their studies in higher education. The assessment and documentation of all areas of knowledge other than the compulsory subjects mentioned above should be the responsibility of higher education and tertiary vocational training.

## ■ SUGGESTIONS

1. A short-term objective should be to create a comprehensive, twelve-year public education structure and all further development plans should be placed in this framework. The basic legal conditions for this system have already been created by the extension of compulsory education to age 18. As the next step, learning support programmes must be developed and implemented in order to ensure that these twelve years of schooling provide high quality education leading to the successful completion of secondary school. Currently there are two types of secondary school that offer complete *Matura* programmes and thus satisfy the requirement of comprehensiveness. The programmes of vocational training schools should be gradually altered to approximate vocational secondary school programmes and, as the next step, differences between vocational and academic secondary schools should be progressively reduced until a uniform public education programme has been achieved. Rather than dramatic restructuring, the renewal process needs a series of small but systematically implemented steps leading to steady quantitative progress whereby an increasing number of students attain higher standards. Our objective must be to enable every young person in Hungary (at least 95 per cent of the population) to complete secondary education and sit the school leaving examinations by 2025–2030. Given the education reform programmes launched in other countries, a less ambitious objective would jeopardise all hope of Hungary preserving its competitiveness. However, distant though this programme may appear, the first steps toward realisation must be taken right now. First, legal and management frameworks should be adjusted to this goal and regulations should be developed in this spirit. And second, any future policy proposals should be evaluated with respect to the question of whether they are consistent with these long-term objectives.

2. A comprehensive but relatively short-term research and development programme should be set up to review the legal framework of public education and a scientifically based law making programme should be established to act as a guide to future policy planning. Policies must be consistent and point in the same direction, i.e., it must be ensured that they do not cancel out each other's results. The changes they introduce should be of a manageable scale and their impact should be trackable. The principles of evidence-based education policy, which have been adopted by several countries, should be adapted to Hungarian conditions and observed within the bounds of local legal and legislative frameworks.[16] A scientific investigation is needed into the causes of the emergence of an exceptionally selective school system in Hungary. We should find out what

[16] A several-year OECD programme has been launched to disseminate the tools of evidence-based education policy. For an overview of the outcomes of discussions on evidence-based policy, see OECD (2007b) and, in Hungarian, an OKA background study by HALÁSZ (2007).

keeps the system alive, and what the concerns are which motivate schools to admit students selectively and parents to prefer some schools to others. What is it that sustains the — in many respects false — belief that the best or the only way of gaining access to higher education is to enrol children in a "better" secondary school? What legal anomalies arise from the contradiction between the public's rights to school choice and schools' rights to student selection? There should be an investigation into what legislative tools and support options are available to turn these interests around. The public education assessment and evaluation system should be extended in order to permit the monitoring of local (regional, micro-regional, local government, maintainer and school level) implementations of selection. A system of indicators characterising the various modes of selection should be developed. Similarly to the PISA programme, the national assessment system should also measure and publish differences between schools on a regular basis. Research and development programmes should be set up to develop educational methods suitable for teaching heterogeneous groups of learners.

3. As suggested by *Carrol*'s (1993) model, one method of dealing with input differences in an effort to homogenise output at the highest possible level is to exchange developmental differences for learning time differences. Some students take longer, while others take less long to attain the same objective. If this is disregarded, the expansion of secondary education is doomed to failure. A research and development programme should be set up to investigate motivation problems and to develop teaching methods that can raise motivation and allow students to experience success. Current research and development programmes responsible for laying the foundations for the implementation of a comprehensive secondary (public) education system should be expanded and new ones launched. Workable solutions must be found and their effectiveness must be scientifically tested. Learning and teaching methods meeting the needs of students characterised by faster or slower than average progress should be developed for use in and outside the classroom. Out-of-school learning schemes should be devised ensuring an optimal workload for student populations substantially deviating from the average. Students showing slow progress should be given the opportunity to extend their study period and master the necessary knowledge over a longer period of time (but to a standard level of proficiency). At the same time, secondary school students who are ready for higher education should be permitted either to move on or to obtain "real" higher education credits counting towards their degrees while staying at secondary school.

4. The objectives of enhancing the affective domain should be set out on the basis of scientific evidence. An indicator system should be created to measure the effects of methods aimed at developing this domain. Research should identify those elements of the various school subjects which have the potential to be used

in a programme of affective education (e.g., visual arts, music or reading literature). Activities that may play a significant role in enhancing affective development (e.g., group work) should be given special emphasis. The development of psychomotor skills is a similarly neglected area in secondary education. Just as for the affective domain, a detailed psychomotor taxonomy capable of being put into operation should be drawn up and the benchmarks, indicators and assessment methods of psychomotor education should be established. The traditional concerns of fine motor movement (such as handwriting) should be supplemented with modern needs, such as computer keyboard skills. Subjects contributing to the systematic enhancement of motor skills may include drawing, visual arts, musical instruments, dance, physical education and a variety of sports.

5. The relationship between public education and vocational training should be reconsidered and a substantial section of vocational training currently embedded in public education should be gradually transferred to other educational systems, mostly to tertiary education. It is an unacceptable system where the student base of vocational training consists of students who have stopped making progress in their studies, experienced repeated failures and are hampered in a variety of ways. These students must receive the kind of support outlined above, which should be an issue entirely independent of vocational training.

6. The — by now functionless — two-tier structure of the *Matura* should be abolished and examinees' knowledge should be shown on a single, sufficiently differentiated scale. The *Matura* system should be improved to ensure that it both fulfils the function of a school leaving examination and satisfies higher education admission policies while at the same time preserving the positive outcomes of the earlier reform. Also, the *Matura* should be made concordant with the general trends taking place in higher education. It should motivate students and reliably measure genuine achievements but should not force a premature choice or impair equality of opportunity. Its function as a school leaving examination calls for criterion-oriented evaluation, whereby pre-defined standards must be attained. This means that a system of binary grading (pass vs. fail) would essentially suffice (similarly to the system used for driving tests). As an entrance examination to higher education, however, it needs a highly differentiated, many-valued evaluation scale that permits applicants to be ranked. To meet both conditions, the evaluation system must both assess whether the student meets the pre-defined criteria (standards) and show the level of performance above the minimum standards. Modern testing models (based on Item Response Theory) permit the development of scales of this type. The above conditions would be satisfied, for instance, by a scale where 200 score points are needed for a pass, 500 points mark the level showing excellent performance (Grade A) and further increasingly challenging tasks could be included leading, perhaps, to a thousand score points, thus allowing different levels of outstanding performance to be distinguished.

7. The modernisation of the *Matura* system must involve the scientific establishment of a set of subject standards, which should be continuously improved, refined and updated. The agency responsible for the development of examination contents should be reinforced and a network of academic working groups (ideally affiliated to university research and training centres) should be set up, where the standards are continuously updated. Natural sciences should be made a compulsory examination subject (with a choice between integrated natural science and one of the sub-disciplines). With the introduction of a fifth compulsory subject, the endless row of option subjects can (and must — school leavers cannot be burdened any further) be cancelled.[17]

8. The new evaluation scale can be developed from the existing system. This technically involves the merging of the test banks pertaining to the current two levels and the parametrising of all questions on a common scale. The "pass" threshold should be specified with reference to performance criteria, i.e., pre-defined standards, while it is advisable to set the threshold for a grade A based on norm-referenced criteria. The above-excellent portion of the grading scale should be adjusted to the range of students' performance, i.e., the scale should be detailed enough to differentiate levels of performance even in the top range. To prevent *Matura* grading scales from depreciating and to protect scores from inflation, the mathematics and science scales should be linked to international survey standards (PISA, TIMSS). The new *Matura* should meet the standards of the current externally administered advanced level examination.

## ■ COSTS AND TIMING

The resources needed for the development programmes aimed at creating a unified school system are available to the comprehensive school model programme of the New Hungary Development Plan (ÚMFT). The desegregation programme may be funded by various ÚMFT resources. It must be ensured, however, that these programmes do not solely focus on resolving problems generated by the current dysfunctional system but also devote attention to the sustainable renewal of operation and the creation of a segregation-free comprehensive school system. The Hungarian Genius Programme offers funding opportunities for schemes aimed at nurturing the talents of gifted students. The goal of establishing a comprehensive secondary education system is clearly concordant with the approach of "everyone is talented" underlying the Genius initiative.

[17] Given that the *Matura* has just recently been reformed after a period of one and a half centuries during which no changes had taken place at all, it is probably difficult to see why further changes are needed and thus some voices are in favour of no change. Our view, in contrast, is that the positive elements of the reform must be reinforced while obvious mistakes must be rectified as soon as possible.

The ÚMFT also allocates resources for the improvement of the *Matura*. The standardised school-external examination programme proposed here will require more resources than the current standard level examinations do. The simplification of the system and the elimination of option subjects could, however, compensate for the increased costs. Also, current demographic trends predict a temporary reduction in the number of school leavers, which may also be a source of saving.

## ▪ LINKS TO OTHER PROGRAMMES

The delivery of this programme is contingent on the success of efficient skills development programmes at the first stage of primary education and on the availability of an assessment system providing regular feedback. Given these prerequisites, the shortest reasonable time course of the full expansion of secondary education is 18–20 years.

The renewal of the final stage of public education builds upon the outcomes of programmes concerned with earlier stages of schooling. It is a widely recognised fact that the problems characterising secondary education can be traced back to previous stages, i.e., the viability of the uniform expansion of public education hinges on the successful renewal of pre-school and primary school education. A good start — an adequate level of development in basic skills and competencies needed for learning — is an indispensable precondition for successful education in later years of schooling and for a reduction in the incidence of students dropping out of school.

The proposed assessment and evaluation system can be assigned a specific function if educational advancement is viewed as progress towards the completion of secondary education. The evaluation scheme applied to students in years 8 and 10 could be built around the same principles as the new *Matura*. The renewal of the final stage of public education is consonant with the proposals concerning the reform of teacher training. As the final stage of public education is the target domain of Master's level teacher training, the renewal of the latter is a prerequisite for the expansion of secondary education.

## ▪ EXPECTED GAINS AND RISKS

The objective of completed secondary education essentially consists in preventing students from dropping out. Higher levels of trainability and re-trainability bring direct benefits in the labour market. Other benefits include all those gains that the OECD (2007*c*) study interprets as the "social outcomes of learning."

The proposed development programmes do not have any known side effects. Given that the direct beneficiaries of the proposed programmes are among the most vulnerable layers of society with the least chance of enforcing their rights, the implementation of the programme cannot rely on their support.

A professional consensus is now emerging with regard to the need to reinforce the position of science education. The proposed inclusion of science among *Matura* subjects is expected to receive fairly broad support.

The implementation of these proposals is in short-term conflict with the interests of institutions benefitting from the current selective system. A large number of educators are involved in planning optional *Matura* subjects, among whom the proposal to abolish these subjects is likely to be unpopular.

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# 4 Vocational training and early school leavers

[Ilona Liskó]

Despite the improvement in educational attainments of young cohorts since the transition, a significant, poorly educated stratum is continuously regenerated. There are around five thousand young people every year who have not completed the eight years of primary education by the age of 16 and there are more than twenty thousand students who leave school after completing primary education or drop out of secondary school. There are several economic and social factors contributing to the large scale emergence of young populations who are excluded from the labour market because of their low educational attainment but the education system is also undeniably responsible in that it fails to prevent low educational attainment and the consequent social disadvantages from being passed on to new generations. It is vocational training school students who are most likely to drop out of secondary level schooling prior to attaining secondary qualifications. To be able to retain these students in the education system or bring them back to school, vocational schools must be reformed. However, not only those dropping out of education but also a large share of those completing vocational training are faced with very poor labour market prospects. As a result of the economic and social changes and the education policies of the past 15 years among the secondary level schools, vocational training schools have had to carry an especially heavy burden of adaptation and face the most difficult pedagogical problems. Since at present vocational training schools are the only form of post-primary school attended exclusively by socially disadvantaged students, the development of vocational training has a decisive impact on the long-term prospects of children of poor and uneducated parents.

Vocational training school development has a decisive impact on the long-term prospects of children of poor and uneducated parents.

## ■ DIAGNOSIS

Social differences are rigidly mapped onto the hierarchical structure of secondary education in terms of student composition, and social inequalities are reinforced by differences in education quality.

1. *The hierarchy of secondary level education*. Social differences are rigidly mapped onto the hierarchical structure of institutions in secondary education (academic secondary schools, vocational secondary schools and vocational training schools) in terms of student composition, and these social inequalities are reinforced by differences in education quality. Schools providing vocational training but not offering *Matura* qualifications were attended by lower social classes even before the transition and fulfilled an important social function

(which was especially important for the political ideology of the time): they offered a limited level of social and economic mobility for the masses, training the children of a large number of unskilled industrial and agricultural workers to become skilled industrial workers. Relative to the parents' status, being an industrial skilled worker meant a modest but unquestionable advancement and secure employment. As such, it constituted a promising prospect from the point of view of both parents and children. Since Hungary had a large population of unskilled workers, the schools were in a position to be selective in admitting students.

The distribution of secondary education across different programme types has fundamentally changed over the past one and a half decades. The proportion of students enrolling in vocational training schools declined from 44 per cent in 1990–1991 to 22.4 per cent in 2006–2007. The shift in secondary education enrolment rates was controlled by highly selective admission policies. Secondary schools offering *Matura* qualifications (i.e., vocational and academic secondary schools) and a chance of higher education have become the most promising and popular form of secondary education for the upper and middle classes since the labour market value of the qualifications offered by these schools has improved over the past 15 years. Vocational training schools, in contrast, have become the most likely choice of post-primary education for children of poor and uneducated parents. While the average level of education has increased among their fathers' generation (the microcensus of 2005 puts the proportion of 35–45 year olds with *Matura* qualifications or higher education at more than 40 per cent), the students attending these training schools are likely to be either from families with skilled manual worker parents whose previously secure livelihood became endangered as a result of the economic changes following the political transition or from marginalised unemployed families living in poverty, in disadvantaged regions, who could not keep pace with the rising level of education and who still hope that vocational training schools can provide upward social mobility *(Table 4.1)*.

Vocational training schools have become the most likely choice of post-primary education for children of poor and uneducated parents.

The educational attainment and employment status of secondary school students' parents present a convincing demonstration of the rigidly hierarchical, social class dependent structure of the secondary education system. Tertiary graduate parents' children are ten times more likely to enrol in 6 or 8-year academic schools than in vocational training while poorly educated parents' children are eight times more likely to continue their education in vocational training schools than in 6 or 8-year academic schools (LISKÓ, 2003). Educational differences between parents are paralleled by differences in various circumstances bearing on living conditions and on the children's educational prospects: the family's home settlement (with a higher than average probability students at academic schools live in cities while students at vocational training schools live in small towns or villages); the parents' income and the family's income status; family integrity (the lower the status of the school attended, the higher the probability of divorce or the loss of a parent in the family); and the family's ethnic composition (two thirds of Roma students go to vocational

[TABLE 4.1] THE DISTRIBUTION OF STUDENTS ENROLLED IN VOCATIONAL TRAINING SCHOOLS AS A FUNCTION OF THEIR FATHERS' EDUCATIONAL ATTAINMENT (PER CENT)

| FATHER'S EDUCATION | 1974 | 1994 | 1997 | 2001 |
|---|---|---|---|---|
| Schooling | | | | |
| Less than eight years | 31.3 | 1.5 | 2.2 | 0.8 |
| Eight years | 17.3 | 15.5 | 16.2 | 16.4 |
| Vocational training school | 39.7 | 53.5 | 63.1 | 57.4 |
| *Matura* | 8.3 | 21.2 | 14.4 | 21.0 |
| Higher education | 3.4 | 8.3 | 4.1 | 4.3 |
| Vocational qualifications | | | | |
| Yes | 51.4 | 86.1 | 81.6 | 82.6 |
| No | 48.6 | 13.9 | 18.4 | 17.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| *N* | 1432 | 1634 | 1040 | 1760 |

[SOURCE] CSÁKÓ & LISKÓ (1974); CSÁKÓ, LISKÓ & TÓT (1994); ANDOR & LISKÓ (2000); LISKÓ (2002).

training schools and only a negligibly small number enrol in academic schools) (LISKÓ, 2004, 2005).

Since the social inequalities stemming from family background have an impact on students' primary school achievements and on their chances of admission to secondary schools, the lower down the hierarchy a secondary school type is positioned, the higher the proportion of students who had to make compromises in their choice of secondary school. These students are at the highest risk of not being able to choose the vocation best suited to their abilities and interests because they have to accept whatever is offered to them by schools with spare capacity. 10 per cent of primary school leavers are admitted to secondary schools other than their first choice of institution (HÍVES, 2007).[1] These students are redirected to vocational training schools, i.e., almost half of the students attending vocational training schools receive a type of training they did not choose when applications had to be submitted.

The lower down the hierarchy a secondary school type is positioned, the higher the proportion of students who had to make compromises in their choice of secondary school.

In the past decades the rather meagre resources allocated for development programmes in public education have mostly been used to improve conditions at the predominantly middle class vocational and academic secondary schools while vocational training schools associated with lower social classes have become a neglected area in public education. The introduction of 6 or 8-year academic schools, bilingual education, the foreign language year programme and the two-tier *Matura* at academic and vocational secondary schools has created better than average quality services accessible to children from middle class families. The majority of institutions transferred to church or foundation

Most of the rather meagre resources allocated for education development have benefited vocational and academic secondary schools while vocational training schools associated with lower social classes have become a neglected area in public education.

[1] Hungarian students can apply to several secondary institutions.

maintenance are also among secondary schools offering *Matura* qualifications, which contributes to the expansion of the range of services and to increasing quality. No similar quality and efficiency enhancements have been introduced, however, in vocational training schools predominantly attended by disadvantaged students. (The Vocational Training Development Programme led by the Hungarian Ministry of Education between 2003 and 2006 did not have any perceptible positive effects either on learning outcomes or on the results of international comparisons of student achievements.)

Vocational training schools – which are attended by most of the disadvantaged students – must face the challenge of providing general and compensatory education for children from disadvantaged backgrounds, a task for which they are poorly prepared.

2. *The responsibilities of vocational training schools.* In addition to teaching vocational skills, vocational training schools — which are attended by most of the disadvantaged students — also need to face the challenge of providing general and compensatory education for children from disadvantaged backgrounds, a task for which they are poorly prepared. Vocational training schools would not be able to meet the demands of the new economic and social order even if the expansion of education beginning in the mid-1990s had not placed an extra burden on them. In 1996, however, compulsory education was extended to ten school years. The 1996 amendment to the Public Education Act enforced (the previously only on paper) obligation of children to stay in education until the age of 16 (raised to 18 in 2006) in response to the recognition that the Hungarian economy would no longer need large numbers of unskilled workers in coming years and the educational attainment of the lowest social classes would therefore need to be improved.

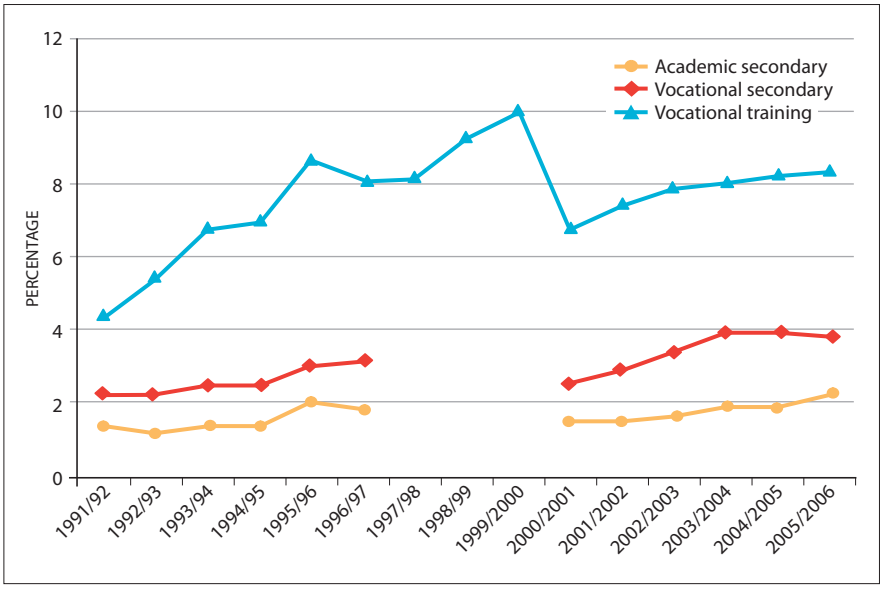
An inevitable consequence of the new regulation is that vocational training schools have to admit children from the most disadvantaged backgrounds, who would not voluntarily continue their studies at any secondary school. These students are characterised by serious knowledge and skill deficiencies as well as social behaviour problems, and receive no encouragement to continue their studies or learn a trade from either their primary schools or their families. As a result, the social composition of vocational training school students has further declined and the proportion of students problematic in all respects has further increased. It is shown by school statistics that the proportion of students coming from high-risk family environments has almost doubled in one and a half decades, while the corresponding proportion has increased to a lesser extent and remained at a lower level for the other two types of school (academic and vocational secondary schools) *(Figure 4.1)*. Students having behavioural and social adjustment difficulties are also more highly represented at vocational training schools than at schools offering *Matura* qualifications *(Figure 4.2)*.

The proportion of students coming from high-risk family environments has almost doubled in vocational training schools.

It could have been foreseen that these institutions, which had never been characterised by high educational standards, could only fulfil the new tasks imposed on them if the education authorities gave priority to their development in terms of both resource distribution and professional support. As this has not happened, the performance and efficiency of vocational training schools have steadily declined over recent years and a persistent crisis has emerged. Teachers

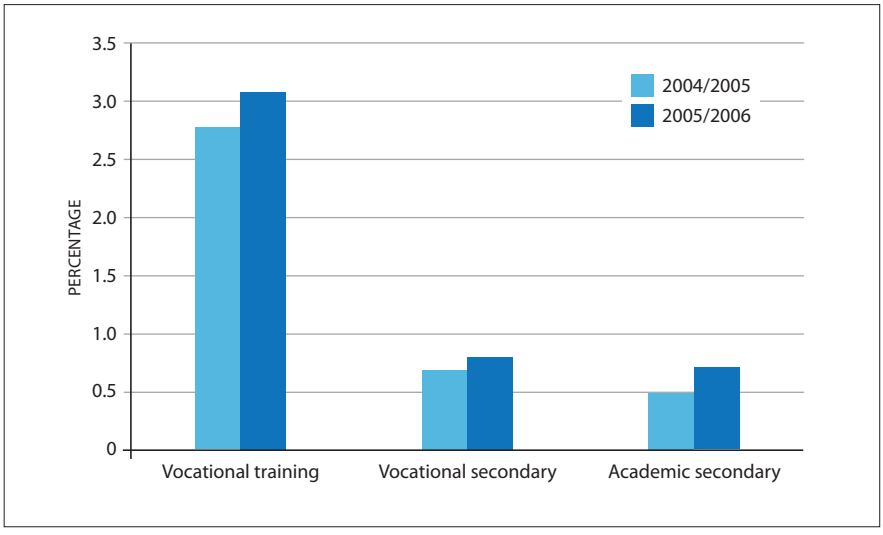
[FIGURE 4.1]
Proportion of at-risk students by school type, 1990–2006 (per cent)

[SOURCE] Hungarian Ministry of Education (OM) Education Statistics Reports 1990/91–1999/2000, OM Annual of Education Statistics 2001/2002–2003/2004.




[FIGURE 4.2]
Percentage of students with behavioural and social adjustment difficulties

[SOURCE] OM Annual of Education Statistics 2004/2005, 2005/2006.




working at vocational training schools find that their students are from more profoundly disadvantaged families than before, have a poorer academic history, and are hampered by more adaptation and behavioural problems. These teachers are dissatisfied with their schools because of their steadily "deteriorating" student composition (LISKÓ, 2003). They are far more likely to list compensatory instruction, social education and co-operation with parents among their most difficult tasks than are their colleagues at other types of secondary schools *(Table 4.2)*.

[TABLE 4.2] THE MOST DIFFICULT TASKS ACCORDING TO TEACHING STAFF AT THE THREE SCHOOL TYPES (PER CENT MENTION)

| TASKS | Academic secondary | Vocational secondary | Vocational training |
|---|---|---|---|
| Instruction | | | |
| Compensatory instruction | 22.2 | 63.9 | 70.9 |
| Differentiated instruction | 42.2 | 56.9 | 49.1 |
| Teaching core subjects | | 18.1 | 32.7 |
| Career orientation | | 12.5 | 20.0 |
| Vocational theoretical instruction | | 13.9 | 5.5 |
| Vocational practical training | | 8.3 | 5.5 |
| Education | | | |
| Social education | 42.2 | 61.1 | 63.6 |
| Co-operation with parents | 20.0 | 29.2 | 54.5 |
| Conflicts between students | 11.1 | 20.8 | 32.7 |
| Conflicts between students and teachers | | 16.7 | 18.2 |
| Conflicts within staff | 4.4 | 2.8 | 1.8 |
| *N* | 45 | 72 | 55 |

[SOURCE] LISKÓ (2004).

Vocational training programmes cannot cope with the task of supporting the development of general competencies at the desired level. Three quarters of students perform at the lowest level in both reading and mathematical literacy.

3. *Education outcomes in vocational training schools.* It is a direct consequence of the changes discussed above that at present vocational training programmes cannot cope with the task of supporting the development of general competencies at the desired level. The results of 10th year students as assessed by the National Assessment of Basic Competencies of 2006 reveal that while 8 per cent of academic secondary school students perform at low levels (Levels 1 or 2)[2] in reading literacy and 14 per cent in mathematical literacy, and the corresponding figures are, respectively, 25 and 31 per cent for vocational secondary school students, three quarters of students in vocational training perform at the lowest level (Level 1) in both reading and mathematical literacy tests. Recent comparative international surveys assessing students' general competencies have shown similarly modest results. The performance shown by students at vocational training schools remains, in every subject, far below not only the average performance of students at the other two types of secondary school but also the achievements of students at similar schools in other European countries. In this respect no changes have been observed in the past five years. The results of the PISA survey of 2006 also reveal substantial achievement problems with students studying at vocational training schools *Table 4.3*).

Even though vocational training schools have the lowest academic standards of all secondary schools, over the past ten years there has been an increase in

[2] Levels 1 and 2 in reading and text comprehension correspond to functional illiteracy.

[TABLE 4.3] AVERAGE RESULTS OF THE PISA SURVEY BY SCHOOL TYPE

| SCHOOL TYPE | Text comprehension | | Mathematics | | Science | | Problem solving | |
|---|---|---|---|---|---|---|---|---|
| | Hungary | OECD | Hungary | OECD | Hungary | OECD | Hungary | OECD |
| PISA – 2000 | | | | | | | | |
| Vocational training school | 371 | 483 | 409 | 484 | 401 | 481 | | |
| Vocational secondary school | 410 | 461 | 417 | 466 | 425 | 471 | | |
| Academic secondary school | 523 | 533 | 528 | 531 | 538 | 534 | | |
| PISA – 2003 | | | | | | | | |
| Vocational education | 402 | 476 | 410 | 484 | 426 | 479 | 420 | 485 |
| Academic secondary school | 492 | 517 | 499 | 521 | 513 | 521 | 511 | 521 |
| PISA – 2006 | | | | | | | | |
| Vocational education | 425 | 489 | 433 | 498 | 456 | 502 | | |
| Academic secondary school | 492 | 494 | 501 | 501 | 512 | 504 | | |

[SOURCE] http://pisaweb.acer.edu.au/oecd/oecd_pisa_data_s2.php, http://pisaweb.acer.edu.au/oecd_2003/oecd_pisa_data_s2.php, http://pisa2006.acer.edu.au/

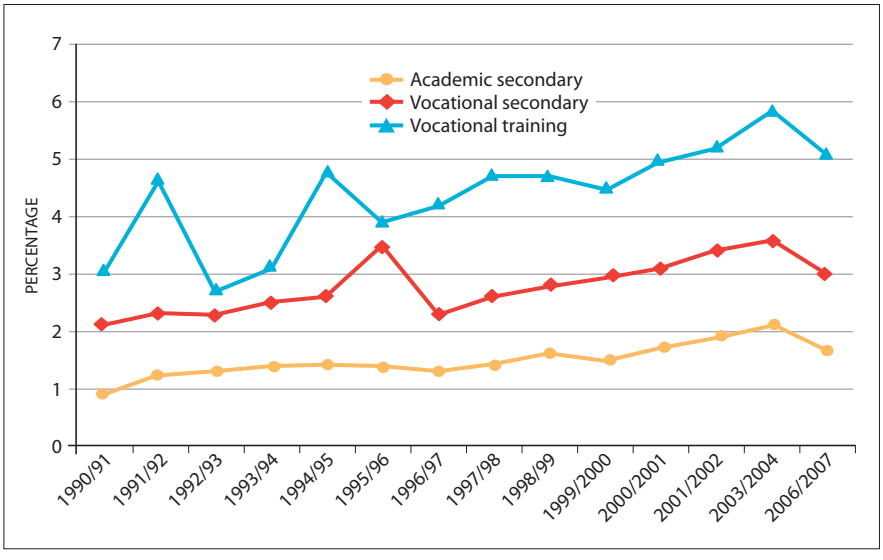
the proportion of grade repeaters. This figure was more than three times as high as the proportion observed in academic secondary schools and twice as high as in vocational secondary schools *(Figure 4.3)*.

The effectiveness of instruction and skills development is much poorer in vocational training schools than is typical of Hungarian and European secondary schools.

That is, it is unequivocally and unanimously shown by all the available data that the effectiveness of instruction and skills development is much poorer in vocational training schools than is typical of Hungarian and European secondary schools. Vocational training schools at present fail to fulfil the task of providing effective general education for the predominantly disadvantaged students enrolled in their institutions. This is also likely to raise doubts as to

[FIGURE 4.3]
Percentage of grade repeaters by secondary school type, 1990/91–2006/2007

[SOURCE] OM Education statistics reports 1990/91–1999/2000, OM Annual of Education Statistics 2001/2002–2003/2004.



whether these schools are ready to equip their students with the increasingly complex vocational knowledge and skills.

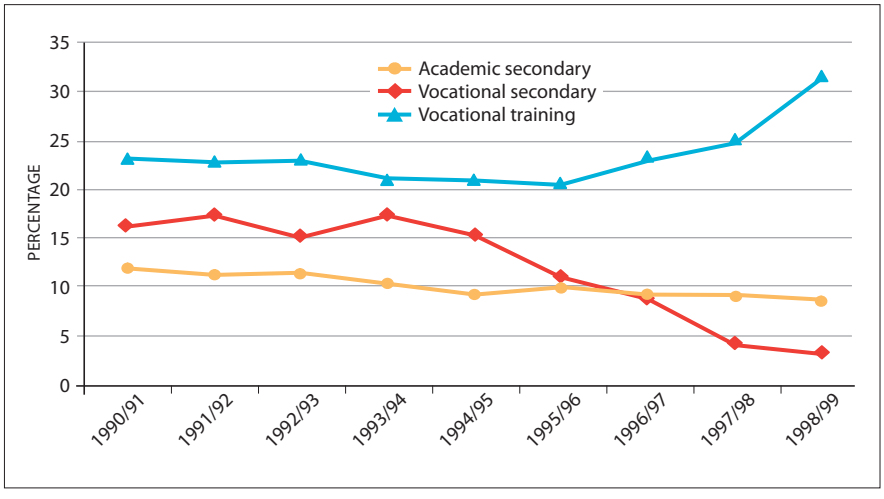
Vocational schools are characterised by far higher than average dropout rates (almost 30 per cent) and almost half of the disadvantaged students enrolled in these programmes fail to attain vocational qualifications.

4. *Dropping out*. Vocational training schools are characterised by far higher than average dropout rates (almost 30 per cent); moreover almost half of the disadvantaged students enrolled in these programmes fail to attain vocational qualifications. Those who leave school without qualifications have absolutely no chance of labour market success. Up to the middle of the first decade following the political and economic transition the probability of dropping out was around 20–22 per cent but as a consequence of the new legislation making post-primary studies compulsory for students from the most disadvantaged backgrounds at vocational training schools, a clear increase has been observed. When in 1999 almost a third of students dropped out, the Ministry of Education decided to stop providing data concerning this issue *(Figure 4.4)*.

The results of major studies investigating the phenomenon of dropping out (LISKÓ, 2002, 2003) indicate that children of poor and uneducated parents (those from families where one or both parents are inactive and those of Roma ethnicity) drop out of school with an even higher than average probability (*Figures 4.5* and *4.6*).

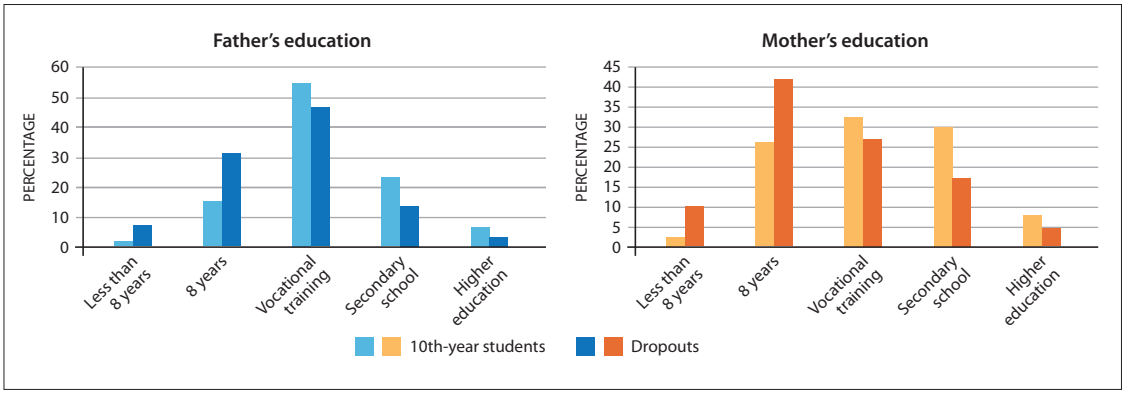
The increase in the proportion of enrolled Roma students has been accompanied by an increase in dropout rates among 9th and 10th year students (LISKÓ, 2002). Students are most likely to drop out in years 9 or 10 (the first two years at the school), before practical vocational training starts. That is, it is precisely those students who leave as soon as they reach the age when compulsory education ends whom the new legislation forced to continue their studies after primary school in order to improve their labour market prospects. There is very little labour market demand for young workers who have left school without secondary or vocational qualifications. Studies investigating the future labour

There is very little labour market demand for young workers who have left school without secondary or vocational qualifications.



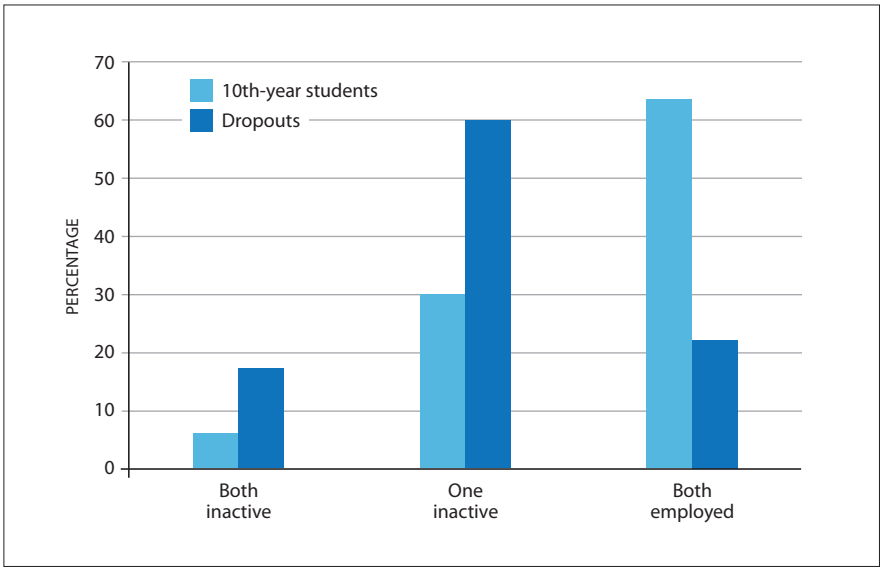

[FIGURE 4.4]
Percentage of dropouts by school type, 1990/91–1998/99

[SOURCE] OM Education statistics reports 1990/91–1999/2000.




[FIGURE 4.5]
Distribution of 10th year students and dropouts by parents' highest educational attainment (per cent)

[SOURCE] LISKÓ (2003).




[FIGURE 4.6]
Distribution of 10th year students and dropouts by parents' labour market status (per cent)

[SOURCE] LISKÓ (2003).

market position of dropouts reveal that a quarter find their place at another school, a third manage to find employment (mostly occasional work with no legal contract and with informal payment) and around 40 per cent become unemployed (LISKÓ, 2002, 2003). There are usually several factors contributing to a student's dropping out but the most typical reason is that these students do not feel comfortable with their schools, i.e., these typically disadvantaged and difficult to manage students simply cannot find their place at these vocational training schools, which have no choice but to admit them but are incapable of tackling the challenges of their instruction and education.

Their former schools do not maintain any contact with dropouts.

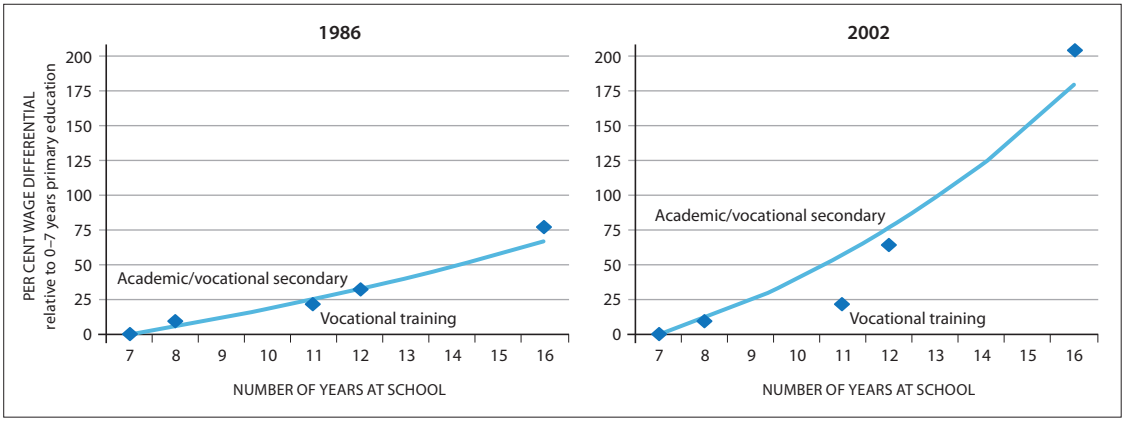
Their former schools do not maintain any contact with dropouts; teachers have little memory of them, they tend to be pleased not to have to bother with them any more or, rather, with the undoubtedly difficult challenges of their instruction and education (LISKÓ, 2003). Since, having turned 16, dropouts are

no longer subject to compulsory education, they can essentially only count on themselves and on the support of their typically hopelessly marginalised and struggling families for the shaping of their future. While state funding was not available for this purpose, in the first years of the new millennium a small number of *second chance* schools were opened thanks to the professional enthusiasm of a few teachers and to hard-to-win grants. These schools undertook to educate children who dropped out of school prematurely but their capacity was far below the great number of children in need of *reintegration*. (One of these schools called Belvárosi Tanoda in Budapest, for instance, was compelled to implement an admission policy almost as strictly selective as that of the elite academic secondary schools because of the massive demand.) The apathy displayed by the education authorities, their refusal to face the problem and the lack of will to find a solution are demonstrated by the fact that the network of state supported *second chance* schools intended to "reintegrate" dropouts has still not, to any significant extent, been expanded.

5. *The labour market devaluation of vocational qualifications.* Before the political and economic transition, the principal responsibility of vocational training schools was to train a class of workers who could be successfully employed in large socialist factories. Since the majority of "consumers" were state-owned industrial plants operating at a low technological level, there was no need to teach sophisticated vocational skills or train students to solve complicated vocational problems. Most students therefore received instruction in simple technical tasks and the three-year programmes were clearly dominated by vocational knowledge. Vocational training and general education were conducted in parallel and the standards and quality of general education had little importance. The teaching staff were structured accordingly (the school heads were vocational teachers and the instructors teaching vocational theory enjoyed higher prestige), as were course requirements (only vocational subjects mattered, it was effectively impossible to fail "general" subjects) and pedagogical methods used at the schools (authoritarianism, harsh punishments, the requirement to comply, order and discipline, etc.) were rigorous. Following the transition, there was a rapid and radical change in the economic environment of vocational training schools. The labour market demand for skilled workers not possessing a *Matura* qualification decreased. Employment rates plummeted among this class of workers from almost 100 per cent before the transition to less than 80 per cent for men, and from 90 per cent to around 70 per cent for women. The wage returns to secondary education and especially to higher education greatly increased relative to eight or fewer years of primary education but there was no change in the returns to vocational qualifications *(Figure 4.7)*. The transition split the labour market into workers with and without *Matura* qualifications (KÉZDI, 2007).

Following the political transition, there was a change in the economic environment of vocational training schools – the labour market demand for skilled workers without *Matura* qualifications decreased.

Studies looking at labour market entrants from vocational training schools (LISKÓ, 2004) find that more than a third of school leavers enter the labour




[FIGURE 4.7]
The returns to education, 1986 and 2002

[SOURCE] KÉZDI (2007).

market with highly insecure prospects. A fifth become unemployed and only a third find work *(Table 4.4)*.

Children whose parents have the lowest educational attainment are faced with especially insecure job prospects. This insecure labour market outlook is one of the reasons why increasing educational ambitions have recently been observed among vocational training school leavers. The great majority of vocational training school students do not see the vocational qualifications as the end of their education (LISKÓ, 2004); almost 50 per cent plan to attain *Matura* qualifications and 35 per cent continue their studies after completing their vocational training. Most of these students decide to continue their studies in the hope of avoiding unemployment and improving their labour market chances. 50 per cent of those who left the education system after completing their vocational training were out of work for varying periods during the year following. Little more than half of those who found work were employed in jobs matching their vocational qualifications and their wages were substantially lower than they had hoped to earn (LISKÓ, 2004).

The labour market devaluation of vocational training school qualifications is primarily explained by the process whereby the specialised skills acquired

[TABLE 4.4] THE DISTRIBUTION OF SECONDARY SCHOOL LEAVERS ACCORDING TO LABOUR MARKET STATUS ONE YEAR AFTER LEAVING SCHOOL (PER CENT)

| SCHOOL TYPE | Studying | Working | Unemployed | Other | *N* |
|---|---|---|---|---|---|
| 6 or 8 year academic secondary school | 97.1 | | | 2.9 | 35 |
| Traditional academic secondary school | 88.9 | 4.9 | 1.2 | 4.9 | 81 |
| Vocational secondary school | 66.4 | 14.6 | 10.9 | 8.0 | 137 |
| Vocational training school | 35.4 | 35.4 | 19.5 | 9.8 | 82 |
| Total | 67.5 | 15.8 | 9.6 | 7.2 | 335 |

[SOURCE] LISKÓ (2004).

The labour market devaluation is primarily explained by the process whereby the specialised skills acquired in vocational training have gradually lost while general skills have gained value.

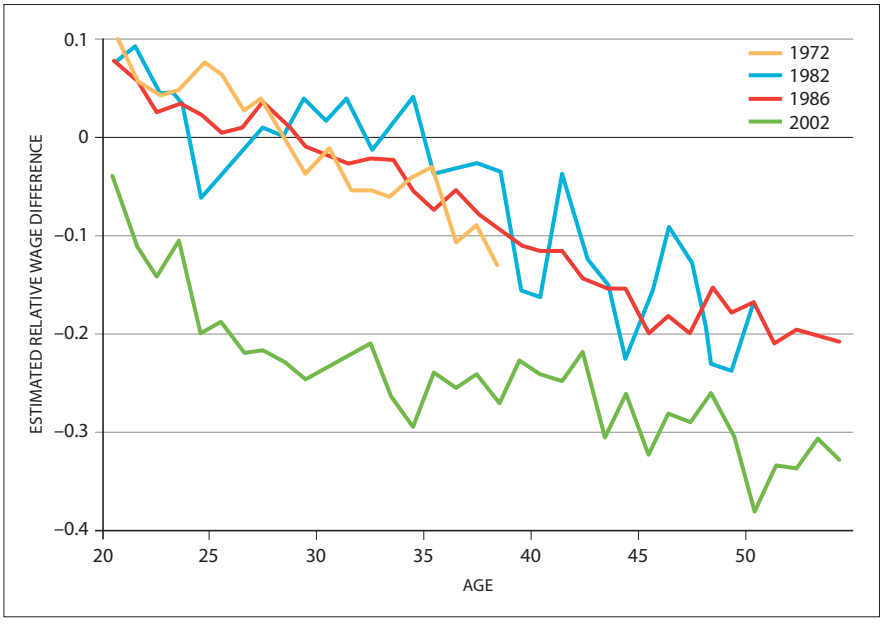
in vocational training have gradually lost their value while general skills have increased in value. This process is confirmed by several empirical studies. The gap between the wages of workers with vocational qualifications and those of workers with *Matura* qualifications grows with age and experience and this divergence is faster and more pronounced than previously *(Figure 4.8)*. This is a consequence of the broader practical and theoretical applicability of the general skills acquired at schools offering *Matura* qualifications, i.e., those possessing skills of this kind can more readily adapt to changing demands because they are better equipped to master new knowledge.

The specialised skills acquired in vocational training soon become obsolete and the workers are not equipped to modernise their knowledge, or not to the required extent, as they move forward in their lives (KÉZDI, 2007). The increase in the wage disadvantage of workers with vocational qualifications is in part a result of reduced employment stability in today's labour market, i.e., a young worker is at present far less likely to be employed in the same profession for the duration of his or her active lifetime than was the case in the past. Moreover, since general technology steadily advances and vocational requirements continually change, a worker can only expect long-term employment in a given occupation if he or she has the ability to learn new skills as and when needed and the prerequisites for training are given. As a consequence of changing vocational requirements and the increased demand for core knowledge (such as reading and writing literacy), deficiencies in general competencies substantially reduce the employment odds of workers with vocational qualifications. This is demonstrated by the results of studies investigating the effects of changes in literacy requirements in an occupation on the educational composition of the workforce (KÖLLŐ, 2006). It is also confirmed by surveys of vocational requirements in different occupations that, similarly to other countries, Hungary is also characterised by a trend whereby general competencies (the ability to acquire new knowledge, communication skills, user level info-communication skills) are assigned increasingly more importance in blue-collar professions (KOSZÓ ET AL., 2007). It therefore appears to be crucial to develop core skills in order to improve the labour market chances of students attaining their qualifications at vocational training schools.

6. *The problem of job mismatches, changes in the supply of different types of vocational training*. In addition to the low level of core competencies and the inadequacy of schools in providing compensatory instruction for their students, the substantial decline in the proportions and labour market value of vocational training is also explained by the system's failure to adapt to changes in the relative demand for various vocations. Studies comparing the vocational composition of vocational training school leavers with the demand for various vocational qualifications (KÉZDI, 2007) reveal that although in terms of their output, training programmes have to some extent responded to the reorganisation of demand, the "match" has clearly deteriorated since the transition. The

[FIGURE 4.8]
Vocationally trained workers' wages relative to secondary school graduates' wages as a function of age/experience, 1972, 1982, 1986, 2002

[SOURCE] KÉZDI (2007).




The "match" between vocational qualifications and labour market demand has clearly deteriorated since the transition. The proportion of skilled workers not employed in their professions or not employed at all has increased from 35–40 per cent to around 60 per cent at present.

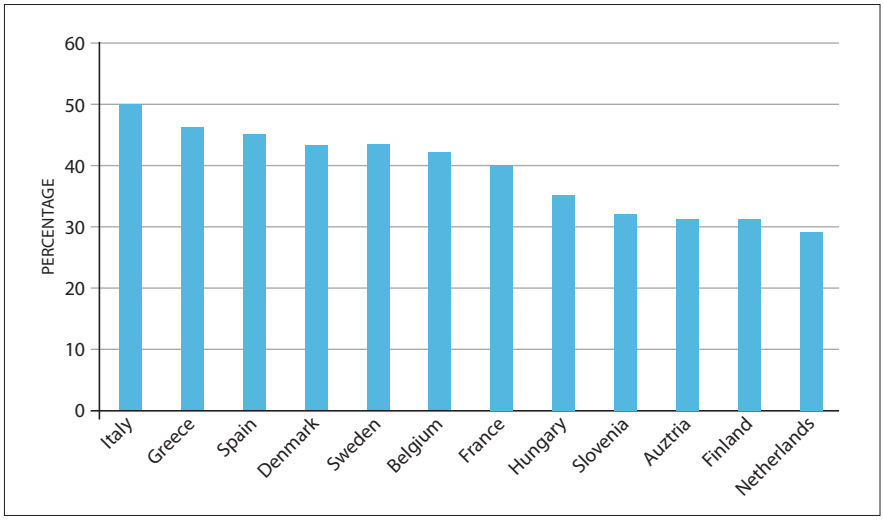
proportion of workers with vocational qualifications not employed in their professions (doing other types of work or not working at all) has increased from 35–40 per cent before the regime change to around 60 per cent at present (KÉZDI, 2006, 2007). International analyses of the transition from school to work (EUROSTAT, 2003) find, however, that in Hungary only 35 per cent of students graduating from secondary vocational education (which includes vocational training and vocational secondary schools) enter employment not matching their qualifications. This figure is lower than the corresponding proportions observed in most European countries *(Figure 4.9)*.

A number of factors have contributed to the failure of training programmes to fully adjust. One of these is that the institutional structure of vocational training has become increasingly fragmented. Even though the number of students attending vocational training programmes substantially decreased, the number of school based training sites offering these programmes increased from 465 in 1990 to 580 in 2006. At present 90 per cent of vocational training programmes are offered by multi-function educational institutions in combination with secondary vocational education and/or primary education or academic secondary education programmes. The range of programmes offered by a school is influenced by several institutional considerations, such as the preservation of teaching jobs or access to the vocational training fund (MÁRTONFI, 2007; FARKAS, 2008). The labour market outcomes of school leavers, however, do not appear to play a decisive role in this respect (partly because no data is available).

A further factor behind the poor adjustment of vocational training programmes is that in the early 1990s the industrial plants that had previously tak-

[FIGURE 4.9]
Percentage of job mismatches among graduates of secondary vocational programmes in selected EU countries, 2000

[SOURCE] EUROSTAT (2003).




en an active part in vocational training (by maintaining apprenticeship sites or conducting vocational group training) withdrew from training and dissolved the partnership with vocational training schools. Schools thus had no choice but to build or expand their own training facilities quickly to ensure uninterrupted training even if the quality and equipment of these facilities had to be far below the required standards. Although by the beginning of the new millennium there was some improvement in the availability of apprenticeship sites thanks to the economic consolidation and the dramatic decline in the number of students enrolled in vocational training, 40 per cent of vocational training school students still receive all their practical vocational training within school.

In an effort to improve the match between the choice of vocational training programmes and labour market demand, in 2007 the Hungarian government finally implemented a number of important reform measures (which made their way into the legislation and into development programmes). These were the concentration of development programmes targeting the infrastructure of vocational training in Regional Integrated Vocational Training Centres (TISZK), the assessment of education quality at institutional and national levels (the introduction of regular performance assessment), and the assessment of the efficiency of education at institutional and national levels by the monitoring of school leavers' labour market careers.

With respect to the career monitoring system the amendment to the Public Education Act specifies the kind of data which must be provided by various actors. If a school leaver does not enter employment, it is his or her responsibility to provide information for the system; if the school leaver is employed, the employer must provide data on the type of job for which the newly qualified worker is engaged and on the responsibilities of the worker; finally, the school is required to notify the career monitoring system of the awarding of vocational

qualifications. As specified by the legislation, Regional Development and Training Committees are responsible for defining the subject priorities of vocational training development and the distribution of student places in different vocations; they are required to participate in maintaining the career monitoring system and to approach the local governments operating in their regions with proposals to create partnerships co-ordinating vocational training.

Efforts to adjust training structure to labour market demand can only improve the employment prospects of workers with vocational qualifications if they are based on appropriate evidence. The currently available data is insufficient for the assessment of labour market outcomes.

7. *Problems of labour demand forecasts*. Efforts to adjust training structure to labour market demand can only improve the employment prospects of workers with vocational qualifications if they are based on appropriate evidence. Regional Development and Training Committees have more accurate information on the labour market chances of trainees than schools or local governments or non-governmental education providers. The problem is, however, that the currently available data provided by the state administration or other, sporadic surveys is insufficient for the assessment of labour market outcomes. Moreover, even the career monitoring system currently under implementation is highly unlikely to be able to provide sufficiently reliable data. The reason is that even a short term projection of the demand for various vocational qualifications has to face sizeable barriers. A worrying demonstration of the problem is that on examining the labour market forecasts by the national Public Employment Service, which are based on employers' reports and categorise professions into those *in demand* and those *depreciating*, we often find the same vocations in both categories.[3]

Methods relying on employer questionnaires therefore have little applicability in forecasting changes in labour demand. Companies will not suffer any disadvantages if they report a demand for vocations which turn out not to be required at a later stage. Questionnaires do not usually collect any information on why a certain position is vacant: because there would be no applicants even if higher wages were offered, or because the wages the company is prepared to offer are not high enough, or else because the employer is dissatisfied with the skills of applicants, which is usually equivalent to saying that as long as the wage offer remains low, the vacant position could only be filled by workers with poorer skills. Low wage offers are likely to be one of the important reasons for the shortage of applicants in some of the "in demand" professions listed by the short-term labour market projection (SELMECZY ET AL., 2007). Even if reliable short-term estimates of future labour demand trends could be obtained, these would not be sufficient for determining the optimal distribution of student places at vocational training and vocational secondary schools. What is needed are reliable, methodologically sound medium-term labour market projections. These, however, are not currently available and there are no data banks from which medium-term projections could be derived.

[3] See the county-level profession ranking tables provided by the Public Employment Service. http://www.afsz.hu/engine.aspx?page=full_borsod_stat_szakma_fogl_poz

The analysis of the careers of school leavers is an important tool in co-ordinating labour supply and demand. Its data collection method, however, raises grave concerns with respect to reliability.

8. *The reliability of the career monitoring system.* An analysis of the education and labour market careers of school leavers may be an important tool in co-ordinating labour supply and demand. The data collection method specified by the Public Education Act, however, raises grave concerns with respect to the reliability of the data intended to be collected for the career monitoring programme (GALASI, 2007). Firstly, a large share of non-employed school leavers are likely not to comply with the requirement to report their status and a systematic bias is likely to exist between compliers and non-compliers. Similar concerns hold for employers' duties of providing data and the incidence of unreported employment can seriously distort results. Also, the programme only collects data on the fact of employment and whether the job "matches" the qualifications of the employee. It does not extend to the most important indicator of labour market success, namely earnings, or to other factors affecting a worker's labour market outcomes (such as post-school training history and general competencies acquired at or outside school).

When the relative proportions of different vocational training programmes are planned, companies' short-term needs are likely to be given priority over general education and long-term adaptability.

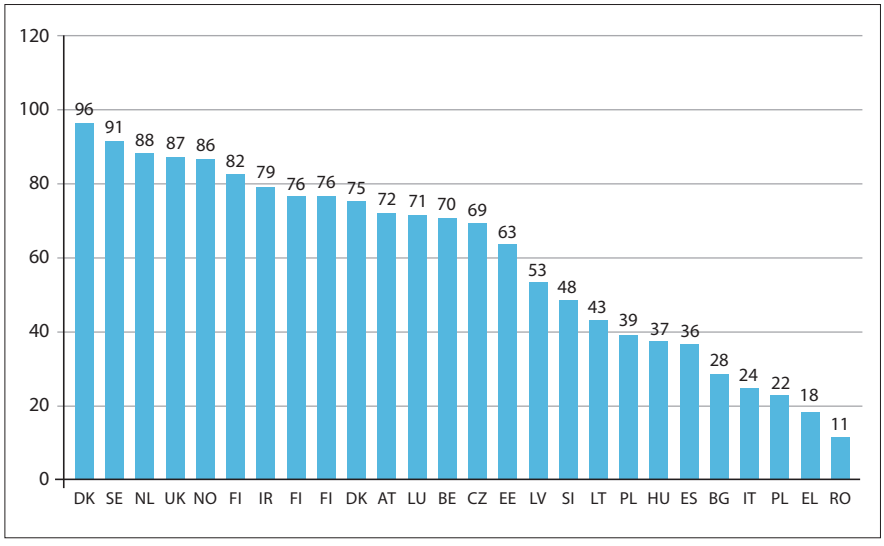
9. *Short-term employer needs or long-term adaptability*. In the absence of appropriate forecasts and information sources, it is primarily companies' short-term labour needs — as reported for employer surveys — that Regional Development and Training Committees can rely on as data in planning the training structure and student places of vocational training programmes since these surveys provide only short-term information on the expected demand for skilled labour. There is therefore a danger that factors affecting long-term adaptability will not be taken into consideration in efforts to meet short-term labour market needs. That is, in planning the relative proportions of different vocational training programmes, companies' short-term needs are likely to be given priority over general education and long-term adaptability. Companies gain short-term benefits from this strategy since they will have newly qualified workers to employ for a few years and when these workers can no longer adapt to changing requirements, there will be another generation of newly qualified workforce, who are employable for another few years, and so on. In the long term, this solution has very serious social costs. This danger seems all the more likely since currently very few Hungarian companies make efforts to provide continued in-service training for their employees. The majority of companies expect the education system to supply a specially trained and experienced workforce to them. This expectation is not only unreasonable but also stands in sharp contrast to modern Western corporate practices, where extensive in-service training is the key component in ensuring that large numbers of employees acquire specialised skills and experience (EUROSTAT, 2002).

10. *In-service training, adult education*. Hungary is characterised by one of the lowest training participation rates among the adult population in the EU.[4]

[4] Differences in participation rates according to educational attainment are discussed in Chapter 11 on employment policies.

[FIGURE 4.10]
Percentage of companies offering in-service training in EU countries, 2000

[SOURCE] EUROSTAT (2002).




*Abbreviations* AT: Austria, BE: Belgium, BG: Bulgaria, CY: Cyprus, CZ: Czech Republic, DK: Denmark, EE: Estonia, EL: Greece, ES: Spain, FI: Finland, FR: France, HU: Hungary, IR: Ireland, IT: Italy, LT: Lithuania, LU: Luxembourg, LV: Latvia, NL: Netherlands, NO: Norway, PL: Poland, RO: Romania, SE: Sweden, SI: Slovenia, UK: United Kingdom.

Hungary is characterised by one of the lowest training participation rates among the adult population in the EU. The proportion of companies offering in-service training and employee participation rates in training programmes are also below the average level.

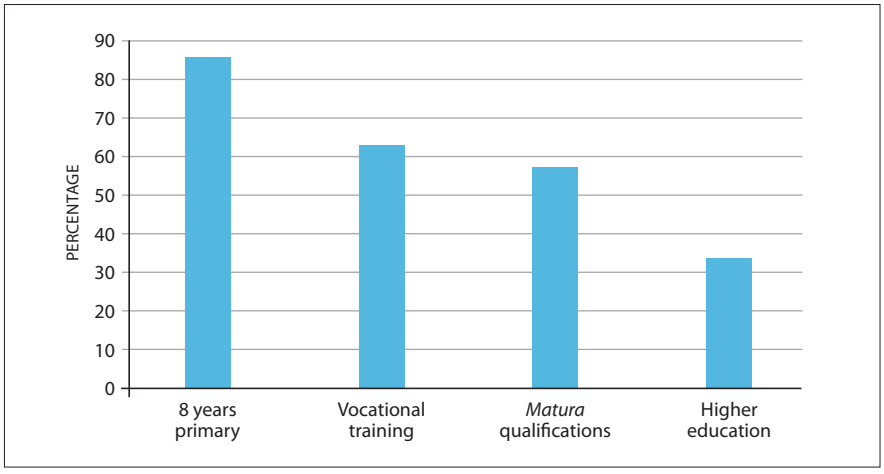
The incidence of in-service training programmes offered by companies and employee participation rates in these training programmes are also below the average level. According to a Eurostat survey, 37 per cent of Hungarian companies offer in-service training (EUROSTAT, 2002), which is far less than the average value of 57 per cent for the EU–25 and positions Hungary near the bottom of the range observed across Europe *(Figure 4.10)*.

The share of employees participating in training programmes where they are offered is 26 per cent in Hungary, which is also less than the average rate. Hungarian surveys indicate an even lower incidence of training programmes. SELMECZY ET AL. (2007) found that in 2006 18 per cent of companies provided training for their employees. The reasons behind the unpopularity of training services are currently unknown. The issue must be investigated, however, to allow policies to create an environment that encourages companies to offer training programmes. The factors contributing to the current situation are likely to include the following: *1.* an intensive workforce turnover, *2.* minimum wage regulations (which prevent companies from transferring some of the costs of training by reducing wages — especially among uneducated employees), *3.* companies' insecure business prospects, *4.* deficiencies in employees' general and learning skills (which would greatly increase training costs for companies if they decided to train their employees) and *5.* other institutional and legislative factors.

If, however, the training system is adjusted to companies' short-term needs, the long-term employment prospects of participants will suffer. Publicly financed vocational training should focus on enhancing participants' general

[FIGURE 4.11]
Proportion of vocational training school leavers dissatisfied with their labour market prospects as a function of parents' educational attainment (per cent)

[SOURCE] LISKÓ (2004).




competencies and core vocational skills since it is these that empower workers with the vocational qualifications needed to successfully participate in advanced training and retraining programmes throughout their careers and to acquire the specialised knowledge required by their employers (at training courses funded by the company), i.e., to enjoy long-term labour market success.

11. *The evaluation of vocational training schools.* The accumulation of educational problems characterising vocational training schools and the declining standards of vocational training have been observed not only by sociological studies but also by the mass media. The quality and outcomes of vocational training are met with general public dissatisfaction on the part of parents, employers and teachers. Among all secondary school leavers, former vocational training school students are the least satisfied with their career prospects (LISKÓ, 2004). Within this group, those whose parents have the lowest educational attainment are characterised by the bleakest outlook *(Figure 4.11)*.

To eliminate these problems, urgent and effective intervention is needed that brings about fundamental changes. In addition to reform measures aimed at enhancing the stage of technical training, development programmes are needed in order to improve the quality and efficiency of general training and skills development. Our development proposals are primarily concerned with the latter area.

## ■ SUGGESTIONS

*1. The institutional separation of general and technical training.* We propose that the secondary education institution system should be restructured to permit the development of a standardised, comprehensive secondary education system accessible in the long term to every single child. In accordance

with current government plans, vocational training tasks currently fulfilled by vocational training schools will be delegated to special training institutions — Regional Integrated Vocational Training Centres (TISZK), which will be better equipped to fulfil this task thanks to a training structure designed to suit regional conditions and to concentrated development resources.

In connection with this development plan, we propose that those of the currently outlined and legislation-conformant TISZK models should be implemented which permit vocational training to be delivered on site at the training centres while general instruction (preparing students for the *Matura* and for vocational education in years 9 and 10 as well as career orientation programmes) is provided at secondary schools at an accessible distance from the students' place of residence. This system would allow a few vocational training schools (four or five schools in each region) to be transformed into vocational training centres (TISZK), where vocational training before and after the *Matura* and adult vocational training programmes could be offered to high standards and with modern equipment. The remaining vocational training schools should be transformed into secondary schools where competency oriented general education is offered preparing students for the *Matura* and for vocational training.

We propose that schools currently solely providing vocational training should be merged with secondary schools offering *Matura* programmes. As a long-term objective, we propose that every single student should be enabled to attain *Matura* qualifications. In the short term, secondary school curricula should include — in addition to academic education — the development of core skills preparing students for vocational training (without the *Matura*), thus giving students the choice to leave after completing year 10. This system would simplify the supervision and administration of the two types of institution (vocational schools are currently supervised by two government departments — not always in smooth co-operation). Furthermore, it would not only facilitate the infrastructural development of vocational training but, by clarifying the distribution of responsibilities between educational institutions, also allow significant advancement in human resources and pedagogical methods, which is indispensable for the delivery of high quality general education and compensatory education for children of poor and uneducated parents.

2. For *courses preparing students for vocational training* (in years 9 and 10) to be successful, they should make use of Hungarian and international experiences in compensatory education. To achieve this goal, we propose that
*a)* teaching materials (textbooks and other materials) aiding compensatory instruction and the development of general learning skills should be prepared and made available;
*b)* Hungarian and international educational methods and procedures aiding compensatory instruction and the development of general learning skills should be assembled and made available;

*c)* teachers involved in compensatory education should be required to attend methodological training courses in compensatory instruction and skills development;
*d)* the financial resources needed for efficient compensatory education (smaller than typical student groups, modern educational tools and methods) should be secured;
*e)* flexible *Matura* preparatory courses should be offered to young people with vocational qualifications.

3. *Reducing the incidence of dropping out.* In order to reduce dropout rates, secondary schools preparing their students for vocational training should overcome the pedagogical attitude that views children with learning and behavioural difficulties as a burden to dispose of as quickly as possible, thus making teachers' work easier and their achievements more impressive. Penalising responses to the problems of students at risk of dropping out (such as penalties for unjustified absences or fail-grade academic performance) should be similarly reconsidered and replaced by methods that help students to overcome their learning and social problems. An event of dropping out is invariably preceded by a long process leading up to a reciprocal feeling of dissatisfaction between the school and the child and his or her parents. The prevention of dropping out is therefore contingent on the co-operation of all those involved (students, parents and teachers), and it is the conditions of this partnership that must be improved in order to deliver results. In this connection we propose the following:
*a)* regulations should be amended to allow a maximum of 25 students in classes where students are prepared for vocational training;
*b)* the penalty of "automatic" expulsion in response to unjustified absences should be abolished;
*c)* students at risk of dropping out (those entering secondary education with below average primary school grades, those who regularly miss classes and those who perform poorly during their first term at secondary school) should be assigned a mentor, whose main responsibility is to provide personalised psychological and pedagogical support in order to forestall dropping out.

4. *Reintegrating dropouts.* We propose that local governments should be under an obligation to arrange for the reintegration of secondary school dropouts and retain them in the education system until the end of compulsory education (age 18). For this goal to be viable schools must advise not only the family but also the local authorities when a student drops out and the local authorities must appoint an official responsible for reintegrating dropouts. We propose that the *second chance* school network should be financed by the state (i.e., the responsibility of reintegration should no longer be entirely delegated to civil society or viewed as a "hobby" pursued by dedicated and conscientious teachers).

To encourage this process, a "reintegration quota" should be introduced, which could be claimed by any educational institution that undertakes to sup-

port students who dropped out of school before the age of 18 until they can sit the *Matura* or obtain vocational qualifications. We propose that *second chance* schools should be either affiliated to current educational institutions or run as independent establishments (run by local authorities, foundations or a church). Since most dropouts are from poor disadvantaged families for whom the children's education constitutes a heavy financial burden, the successful delivery of the reintegration programme could be assisted by the introduction of a student grant encouraging the completion of school. The grant should be accessible to all students who use the services of *second chance* schools and successfully meet the training requirements. The state should undertake to arrange for the development of educational methods and tools needed for effective reintegration, for the distribution of these tools among *second chance* schools and for professional development programmes for teachers involved in reintegration.

5. *Improving the composition of vocational teaching staff.* Vocational teachers working at vocational training schools are currently public servants. This means that — even if they have higher education degrees — they can expect considerably lower wages than their peers working in the corporate sector. Training institutions are therefore not in a position to employ professionals appropriately prepared for vocational teaching duties. The problem could be solved by releasing vocational instructor and trainer positions from the public sector pay scale and securing funds covering the costs of corporate sector wages for them.

6. *Practical training services receive very little support from the central budget*: only 112,000 Hungarian forints per head per annum. This sum does not permit schools to adhere to the training group sizes specified by the regulations or to pay for the power and materials required for running and maintaining the machinery and equipment needed for training. A high quality small-group training service will remain an unattainable goal unless central funding is increased to a level proportionate with the group sizes and the duration of training periods specified by the regulations.

7. While it is a progressive step in several respects, *the Regional Integrated Vocational Training Centre system carries the danger* that vocational training institutions will be located even further away from disadvantaged students living in small rural areas than they are at present and that it will become even more difficult to arrange vocational instruction and intensive skills development courses in small groups. The incidence of dropping out may increase as a result. Both problems must be resolved in some way. The strain of commuting between the students' homes and the school can be relieved by granting travel subsidies or free dormitory placement to disadvantaged students. The implementation of small-group courses aimed at helping students to acquire basic skills should be facilitated by allocating per-student funding to training centres to cover extra costs.

8. *Financial support for vocational training school students.* Before the transition, students attending vocational training schools were entitled to scholarships and the training period counted towards their pension entitlement. Present-day vocational training school students are in similarly great need of secure and balanced financial support. Since the introduction of the institution of employer funded studentships, the only source of funding available to students has been the company where their practical training is conducted. This is, of course, not available to students who complete their practical training at school facilities (40 per cent of vocational training school students). This inequitable arrangement must be urgently rectified in support of the, predominantly disadvantaged, students who are not paid because they receive their practical training at school facilities.

9. *Corporate pre-service and in-service training.* To deliver training programmes that equip students with the skills needed for long-term employment, companies should substantially expand their in-service training services. However, before introducing any institutional or legislative changes to this effect, careful research needs to be done to discover the best means of providing incentives for companies to expand their training services since at present no information is available on which to base policies. A survey programme should be set up involving a large sample of companies in order to identify the factors influencing companies' readiness to provide in-service training.

10. *Adult training.* Vocational training schools should be encouraged to get involved in adult training. Both vocational training schools and vocational secondary schools should use their student capacity freed due to demographic factors for adult training programmes that cannot be provided by current — often virtual — adult training institutions, which do not have suitably qualified teaching staff, classrooms or practical training facilities. This free capacity should be primarily devoted to compensatory education, training and equipment-intensive vocational training for disadvantaged populations and to extended training programmes.

11. *A standardised career monitoring system.* We propose that a *centralised and standardised* career monitoring system should be set up with centrally administered data collection. School leavers' careers should be followed for 38–40 months after obtaining qualifications. Since the process of labour market integration tends to extend over a few years, a one-year observation period is not long enough to obtain an accurate assessment of labour market prospects. Young workers should be observed at four points of this period. The first series of (basic) data should be collected during the students' final year at vocational training or vocational secondary school. In line with international practice, the second interview should take place 14–16 months after leaving school, by which time the possible insecure transitional period is expected to be over. The

third and fourth rounds of observation should again be conducted at about one year intervals. The collected data should include school leavers' personal details, contact details, the details of the training institution attended by the respondent, the respondent's school results, starting qualifications, vocational training history, in-service training history, foreign language skills, foreign language courses, computer skills, labour market status (employed, unemployed, student or other inactive), job, position, pay, working hours, working patterns, employer details and the respondent's labour market experience.

Depending on the availability of resources, the surveys should be either carried out on a representative sample or on the entire population of school leavers. In the former case, optimal methods of representative sampling should be investigated and the minimum size of the sample population should be established keeping in mind that it should be large enough to allow an assessment of the training institutions' output. Response rates are very important, as is the incidence of respondents dropping out of the survey. For a career monitoring system to be efficient not just one single generation of school leavers should be observed but data should be periodically collected. This permits changes in labour market supply and demand to be followed. Since there is a low probability of very rapid restructuring, it would be sufficient to observe every third generation of school leavers.

## ■ COSTS AND TIMING

A successful education programme for children of poor and uneducated parents inevitably calls for extra services and is consequently more costly than a typical educational programme. The following paragraphs give details of the costs and time requirements of individual proposals:

**1** The division of current secondary-level vocational training institutions into vocational training centres and secondary schools can be gradually implemented over the next five years. The course of "purifying" institution profiles should be adjusted to the rolling out of regional vocational training centres. Since the launch of Regional Integrated Vocational Training Centres (TISZK) is financed by the second National Development Programme, no other major investments are needed for the implementation of the programme. The reform process involves the restructuring or, possibly, the reduction of teaching staff (mostly vocational instructors) working at the institutions. The maintenance and continuous development of the resulting pure profile secondary schools offering general training can be financed from regular annual budget sources.

**2** The development and dissemination of methods and tools of compensatory secondary education is a similarly pressing task. It requires a one-time investment, which could be allocated from the development fund of the second Na-

tional Development Plan. Since curriculum development is a typical task for government research institutes, this responsibility could be delegated to one of the current research institutes as part of the current system of professional development schemes for teachers. The reduction of class sizes required for the efficient education of children of poor and uneducated parents calls for regular additional funding. This is a crucial step that can no longer be delayed.

**3** To reduce the incidence of dropping out, 800–1000 mentors must be engaged as soon as possible. This constitutes a permanent increase in wage costs.

**4** The implementation of the proposed reintegration service involves the introduction of a new funding quota which corresponds in value to the current per-student funding allocated to secondary schools. Under optimal circumstances, the service is expected to be used by about 6000 students a year, which amounts to 1.5 billion Hungarian forints of extra spending assuming current per-student funding rates. The same number of students would be eligible for progressive reintegration student grants (rising with every successfully completed school year), under optimal conditions. The development and dissemination of the instruction methods and tools needed for successful reintegration can be the responsibility of current government research institutes and therefore places no extra burden on the budget. These programmes should be implemented as soon as possible. [It should be noted that as a result of the "purification" of the profile of the secondary education system and the launch of compensatory education programmes (i.e., improvements to the quality and efficiency of disadvantaged students' education), the costs of reintegration will gradually decline.]

**5** The implementation of the standardised centralised career monitoring system involves highly expensive data collection tasks. The necessary resources can be created by regrouping the resources planned to be allocated for the institution-level career monitoring system. Since the practical use of the planned institution-level surveys is highly questionable, the resources could be used far more efficiently if they were reallocated.

### ■ LINKS TO OTHER PROGRAMMES

The above suggestions are closely related to the vocational training development programmes (TISZK) implemented in the framework of the second National Development Plan and to reintegration programmes aimed at reducing the incidence of dropping out, which have also been proposed in the framework of the second National Development Plan.

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# 5 Equality of opportunity, desegregation

[Gábor Havas]

An extreme degree of inequality of opportunity pervades the Hungarian public education system.

The extreme degree of inequality of opportunity pervading the Hungarian public education system and the segregation practices reinforcing it stem from social conditions and are grounded in grim social facts. The socio-economic processes accompanying the regime change led to the emergence of an at least 700 thousand strong, markedly marginalised, social stratum subsisting on the fringes of society, characterised by low educational attainment, sustained labour market exclusion and dire poverty. It is by now the third generation of this class that have grown up reproducing their parents' low educational attainment thereby precluding all chances of finding regular employment. This minority of Hungarian society is currently divided from the consolidated majority by a seemingly unconquerable gap and the despondent isolation of its members gives rise to barbaric and inarticulate reactions of self-defence. These living conditions have a profound detrimental effect on the social development of young generations and lead to the emergence of disadvantages from the very first years of life which are extremely difficult to counteract at a later stage even under optimal institutional conditions. The social processes characterising the period following the regime change forced large populations of children and their families into a virtually hopeless position with severely limited prospects for the future.

Public discussions concerning the issue of dire poverty tend to blur the ethnic and the social dimensions of the problem and treat all the consequences of social exclusion as a "Gypsy issue." We would therefore like to emphasise that dire poverty is not a Roma issue. A little more than a third, maybe almost half of those living in dire poverty are of Roma ethnicity and the proportion of the direly poor among the total Roma population is approximately the same. It is unquestionable, however, that the disadvantages of children from direly poor Roma families are substantially exacerbated by the relentless manifestations of implicit — often subconscious — or explicit ethnic discrimination.

Dire poverty is not a Roma issue.

As it is at present, the Hungarian public education system effectively reinforces the inequalities stemming from social origins rather than mitigate them. There are four major factors contributing to this effect.

1. The extreme polarization of all levels of the public education system: dramatic differences in teaching quality, the quantity and quality of regular and complementary services, the composition of teaching staff and the availability of equipment and facilities.

2. Segregation — the separation of disadvantaged and, especially, Roma children from the rest of the student population, which is both a cause and a consequence of polarisation. Currently about a third of Roma primary school students experience extreme segregation in education.

3. The pedagogical fatalism displayed by the teacher population with respect to children of poor and uneducated parents, especially Roma students. It is a fact that teachers are expected to face extraordinary challenges and special pedagogical problems while not being provided with appropriate theoretical, professional or methodological munitions in the course of their training. The schools where they teach also often lack even the most elemental conditions for efficient education. These teachers have therefore come to the conclusion that there are no pedagogical means of compensating for the academic disadvantage typical of children of poor and uneducated parents. What is worse, since there is a high proportion of Roma among the children of poor and uneducated parents, teachers tend to attribute the problem to ethnicity, i.e., the educational difficulties stemming from dire poverty and unemployment are seen as a characteristic ethnic problem. Schools tend to contend that the main cause of Roma children's school failures is their Roma origin *per se* and that a school is necessarily powerless with regard to the profound problems induced by a combination of their abominable social position and their families' negative "attitude" — the school thus being faced with a *fait accompli*. This attitude of course extends to children of poor and uneducated parents of non-Roma ethnicity since the two groups tend to be conflated because of the ethnic connotations, the consequences however being graver for the Roma. The children involved are well aware of the fatalist pedagogical attitude manifested towards them, i.e., of the firm belief that "you cannot be helped, nothing will ever become of you" even if their teachers conscientiously fulfil their duties and do not explicitly express this opinion. The stronger the segregation in a school, the firmer this belief will be.

4. The almost unanimous consensus among the social elite and especially the middle classes, including the lower middle class, that their children should avoid attending kindergartens, schools or classes where a large number of children of poor and uneducated parents, especially Roma students are enrolled because this would be detrimental to their development and impede the optimal unfolding of their talents. Parents can put substantial pressure on educational institutions in this context, occasionally by sending their children to another school or even to a school in another settlement.

## ■ DIAGNOSIS

Social groups living in dire poverty are concentrated in particular segregated areas.

1. *Regional concentration, segregation*. Social groups living in dire poverty are concentrated in particular segregated areas. There are about a hundred settlements in Hungary which have irrevocably turned into poor-Gypsy ghettos and a further two hundred settlements are on a seemingly unstoppable course to becoming ghettos. The majority of ghettos and near-ghettos are situated in the depressed north-eastern and south-western areas of the country and some of the micro-regions within these areas display several symptoms of regional ghettoization as a result of an aggregation of settlements of this type. Similar concentration processes can be observed in city suburbs (in former worker colonies, state industrial zones, etc.), in parts of the rural eastern Hungarian plains and in urban slum enclaves. (See the box *Depressed micro-regions*.)

This regional or neighborhood concentration of the poorest and most uneducated groups paves the way for school segregation.

This regional or neighbourhood concentration of the poorest and most uneducated groups paves the way for school segregation making not only its elimination but at times also any hope of alleviation illusory. There are at least 180 primary schools in Hungary where Roma students are in the majority. For a further 70 schools it is only a matter of time before this situation inevitably develops as the share of Roma students is already over 40 per cent (HAVAS & LISKÓ, 2006). These are the schools of the poor, where the majority of non-Roma students are also from disadvantaged backgrounds. At least 3000 primary school classes have a Roma majority and at least 1200 of those are attended solely by Roma children. It is worth noting for comparison that in the early 1980s, when the issue of segregated Roma school classes was first put on the agenda by education authorities, 150 all-Roma classes were observed (HAVAS, KEMÉNY & LISKÓ, 2002). The proportion of Roma students among the total primary school population has more or less doubled since then while there has been an eight-fold increase in the number of homogeneous Roma classes (HAVAS & LISKÓ, 2006). In total, about a third of Roma primary school students experience extreme segregation in education and, although we lack precise data, similar proportions are likely to apply to the educational conditions of children of poor and uneducated parents.

About a third of Roma primary school students experience extreme segregation in education and similar proportions are likely to apply to the educational conditions of children of poor and uneducated parents.

Educational segregation is almost invariably accompanied by substantially lower standards in terms of educational facilities, teaching quality and educational services (KERTESI & KÉZDI, 2005). Teachers are reluctant to work in ghetto schools since they have to meet far more difficult challenges requiring special professional skills for the same pay. The composition of teaching staff in segregated schools is therefore heavily influenced by adverse selection processes. Children learn at least as much from each other as from their teachers in schools or classes with a heterogeneous composition in terms of social origin. The homogeneous composition resulting from segregation deprives children of this opportunity. The models and challenges enhancing the motivation to learn are completely absent.

## DEPRESSED MICRO-REGIONS

The depressed micro-regions are characterised by a high proportion of ghetto or near ghetto settlements having exceptionally young populations whose adults members display exceptionally low educational attainments and exceptionally low employment rates.

The depressed micro-regions are characterised by a high proportion of ghetto or near-ghetto settlements having exceptionally young populations whose adult members (aged 18 or over) display exceptionally low educational attainments and exceptionally low employment rates.

The social and demographic composition of depressed settlements and micro-regions is also typical of poor enclaves in larger and more prosperous settlements. An instructional example is "Dzsumbuj" (Bedlam) an infamous poor neighbourhood in an inner city district of Budapest (Ferencváros). A survey conducted in 2005 found that 37.3 per cent (!) of the local population were under the age of 18 and 58 per cent of the adults had only primary education and 19 per cent had not even completed primary school (TORNAI, 2005).

[TABLE 5.1] The characteristics of depressed micro-regions (proportions of categories)

| MICRO-REGION | GHETTO OR NEAR-GHETTO SETTLEMENTS[1] | AVERAGE OF JOBLESS HOUSEHOLDS IN SETTLEMENTS[2] | ROMA STUDENTS WITHIN THE PRIMARY SCHOOL POPULATION[3] | GHETTO SCHOOLS[4] |
|---|---|---|---|---|
| ABAÚJ-HEGYKÖZ | 20.8 | 68.9 | 40 | 40.0 |
| BODROGKÖZ | 35.3 | 62.1 | 37 | 35.7 |
| ENCS | 48.6 | 70.1 | 51 | 36.8 |
| EDELÉNY | 23.9 | 68.7 | 45 | 22.7 |
| MEZŐCSÁT | 11.1 | 61.6 | 21 | 20.0 |
| ÓZD | 34.5 | 58.8 | 41 | 21.9 |
| SÁROSPATAK | 11.8 | 61.4 | 22 | 18.8 |
| SZIKSZÓ | 29.2 | 65.7 | 38 | 30.8 |
| SZERENCS | 27.8 | 57.9 | 27 | 21.1 |
| HEVES | 41.2 | 59.4 | 42 | 42.9 |
| CSENGER | 27.3 | 63.1 | 21 | 12.5 |
| FEHÉRGYARMAT | 20.4 | 64.6 | 38 | 17.2 |
| MÁTÉSZALKA | 30.8 | 58.6 | 30 | 20.0 |
| NYÍRBÁTOR | 35.0 | 65.9 | 30 | 21.7 |
| VÁSÁROSNAMÉNY | 22.2 | 62.7 | 33 | 21.7 |
| SARKAD | 8.3 | 64.7 | 22 | 33.3 |
| SÁSD | 29.6 | 55.4 | 37 | 28.6 |
| SELLYE | 48.6 | 57.9 | 46 | 33.3 |
| SZIGETVÁR | 34.8 | 57.2 | 26 | 20.0 |

[1] Estimation based on data from local government estimates collected for a number of school and kindergarten surveys. Ghetto settlement: where more than 50 per cent of the population are Roma; near-ghetto settlement: where more than 30 per cent of the population are Roma.
[2] Average of all settlements: 48.1 per cent.
[3] Estimation based on 1992/1993 Education Statistics figures (data on the number of Roma students were not included in later surveys) and on data from two studies on the position of Roma students (HAVAS, KEMÉNY & LISKÓ, 2002; HAVAS & LISKÓ, 2006). 15 per cent of the total primary school population are of Roma ethnicity (JANKY, KEMÉNY & LENGYEL, 2004).
[4] Ghetto school: where more than 50 per cent of the student roll are Roma.

[SOURCE] Data Column 1: KERTESI & KÉZDI (1998), Census, 2001. Column 2: Census 2001. Column 3: Education Statistics 1992/1993, HAVAS, KEMÉNY & LISKÓ (2002), HAVAS & LISKÓ (2006). Column 4: KEMÉNY, HAVAS & LISKÓ (2002), HAVAS & LISKÓ (2006).

Educational inequalities stemming from regional or neighbourhood segregation are not necessarily reduced by the forming of micro-regional school associations and integrated education centres.

*Educational inequalities stemming from regional or neighbourhood segregation are not necessarily reduced by the forming of micro-regional school associations and integrated education centres*. Various decrees and other education policy measures have recently been introduced to encourage local governments to enhance cost efficiency and education quality by co-ordinating their local administration duties, including education services, through associations. This policy has partly been motivated by the consideration that by transferring education management from a local to a micro-regional level of administration some of the segregated and low quality institutions can be gradually eliminated. In practice, however, associations often have the opposite effect. When forming and maintaining urban integrated education centres or micro-region educational associations, the local governments of settlements located in the vicinity of towns and inhabited by populations of relatively high social and financial status often dismantle the decade-long district divisions and cancel their institution maintenance partnerships with poorer neighbouring settlements in favour of so-called micro-associations with a nearby county seat, city or, perhaps, one of its integrated education centres. This step institutionalises and makes complete the practice of children of relatively high social status attending schools in the nearby town while the former district school becomes susceptible to ghettoization.

A case in point is the village of Bakonya near the city of Pécs. Bakonya belonged to the Kővágószőlős school district for decades — the local children attended the school in this regional centre of uranium mining. When the mines were closed, the position of the village quickly declined and as a result of selective migration from the village, the proportion of the Roma population steadily increased both in the village and in the school. In 2007 Bakonya formed a micro-association with educational institutions in the nearest suburb of Pécs. This step has institutionalised the option of Bakonya families to send their children to school in Pécs even though the city is three times as far from Bakonya as Kővágószőlős and the only road leads through Kővágószőlős.

The involvement of institutions characterised by relatively poor standards and facilities and an unfavourable social composition in associations or other types of collaborative network does not necessarily offer a solution. The extreme differences pertaining between member institutions and organisational units when they join urban integrated education centres or micro-region educational associations often persist or even widen during their membership. Joint management or the joint administration of some of the services tends to cover up rather than suppress inequalities.

Similar problems arise when — citing its obligation to provide regional education services and to fulfil other centralised educational functions — an association establishes an education centre and uses the grants thus becoming accessible to finance development plans only benefitting the central settlement of the region while the education services in less privileged settlements do not improve or, in some cases, even decline. The developments implemented in

the central settlement prompt families of relatively high status living in other settlements of the region to send their children to the improved schools, which leads to increased segregation in the remaining institutions of the association. Moreover, it appears to be a robust observation that while an increasing number of children abandon local village schools in favour of schools in nearby towns, local village schools owe their continued existence to predominantly the children of poor and uneducated parents commuting from neighbouring settlements of substantially lower status and income position (ZOLNAY, 2007).

Neglected village schools owe their continued existence to children from underprivileged families with substantially lower incomes.

The current institutional conditions in pre-school education are inadequate for the task of compensating for the disadvantages accumulating over the first few years in the lives of children of poor and uneducated parents.

2. *Pre-school education.* The current institutional conditions in pre-school education are inadequate for the task of compensating for the disadvantages accumulating over the first few years in the lives of children of poor and uneducated parents. These children, especially children of Roma ethnicity, are far more likely than the general population to delay kindergarten enrolment until the age of five or even later (HAVAS & LISKÓ, 2006). Although as a consequence of the decline in the child population there are overall more kindergarten places in Hungary than there are kindergarten-age children and institutions are constantly closed down or merged, the distribution of places across the country is far from being even. Settlements or areas inhabited by a markedly high proportion of children of poor and uneducated parents are the most likely not to have a kindergarten at all or else not a sufficient number of kindergarten places. The problems caused by the shortage of places are further exacerbated by a growing share of children staying at kindergarten for an extra year. Previous regulations required children to start school in September if they attained the age of six by 31st August that year but this cut-off date has been modified to 31st May. Also, an increasing number of parents choose to retain their children in kindergarten for an extra year. In 2006/2007 76.2 per cent of six year olds and 4 per cent of seven year olds attended kindergartens (OKM, 2007). A further reason for the increase in the number of six and seven year olds attending kindergartens is that education advisers and professional committees often recommend an extra year at kindergarten naming the children's immaturity for school as a reason.

These recommendations usually apply to children of poor and uneducated parents who started kindergarten at the age of five or later. The substantial overall increase in the number of six and seven year olds attending kindergartens "robs" places from younger children. When there is a shortage of places, children aged 5 or older are given first priority and children with both parents employed come next in the line. It is children of poor and uneducated parents whose parents are unemployed or unwitting disability pension claimants who are most likely to be turned away, i.e., those who are in the greatest need of prolonged kindergarten education.

In 2003, settlements likely to have major problems with regard to kindergarten education were identified on the basis of objective statistical indicators in preparation for a survey (HAVAS & LISKÓ, 2006). 103 settlements without and

226 settlements with kindergartens were selected to be included in the survey sample. Figures indicating the proportion of Roma inhabitants were available for 81 of the 103 settlements without kindergartens. 35 of these 81 settlements had more than 25 per cent Roma populations and 15 had more than 50 per cent Roma populations. That is, almost half (43.2 per cent) of the settlements where there is no kindergarten even though there is a sufficient number of children to justify maintaining one are poor-Roma ghettos or near-ghettos. The figures characterising the settlements with kindergartens included in the sample show similar results. The proportion of Roma inhabitants was more than 25 per cent in almost half (45.2 per cent) of these. The probability of kindergartens being overcrowded and having to reject some of the applicants increases with the proportion of Roma inhabitants in the settlement. The seriousness of the place shortage problem is clearly shown by the fact that kindergartens admitting 125 per cent of their capacity could provide for only about 72 per cent of kindergarten age children and those accommodating 150 per cent of their capacity covered only about 75 per cent of the population.

The probability of kindergartens being overcrowded and having to reject some of the applicants increases with the proportion of Roma inhabitants in the settlement.

In the settlements under study on average 74.2 per cent of the kindergarten age population attended kindergartens compared to the national average of 92 per cent. In 57.7 per cent of the settlements the proportion of children who started kindergarten at the age of five or even later was over 20 per cent, this proportion reaching 33 per cent in almost 40 per cent of the settlements under study and over 50 per cent in every fourth or fifth settlement. The results of the study clearly show that the shortage of kindergartens or kindergarten places predominantly applies to settlements characterised by chronic unemployment, long-term dire poverty and high proportions of Gypsy inhabitants.

In 2005 another study looked at kindergarten services in towns for which statistical evidence indicated inadequate institutional conditions (HAVAS, 2005). Complete sets of data required for the study were available for 27 towns. The data collected from health visitors and kindergartens revealed that nine of these towns experienced a critical shortage of kindergarten places. Eight of the nine towns had an exceptionally high proportion of Roma inhabitants relative to a typical urban ethnic composition and within the Roma population a markedly high proportion of inhabitants were found to live in dire poverty. In the nine towns there were 3,724 kindergarten places to 5,266 kindergarten-age children, i.e., kindergartens could accommodate scarcely more than 70 per cent of the local children. The head teachers of 237 kindergartens in the 27 towns were asked what they thought were the most acute problems in connection with kindergarten services. The shortage of places was (among others) mentioned as a response in 53 of the institutions. Kindergarten admission procedures took place in May–June 2005. The data collected from health visitors revealed that during this period there were 1,031 children who had had their fourth birthday by 31st December 2004 but had not yet spent a single day at kindergarten. With one or two exceptions the children concerned were all children of poor and uneducated parents and most of them were of Roma ethnicity.

An inevitable consequence of a child missing kindergarten education altogether or enrolling at an older than optimal age is a delayed start of formal schooling. The extreme polarisation of conditions also holds for the kindergarten institution network. Speech therapists, remedial teachers, psychologists, swimming, music and language instruction, etc. are all available in kindergartens attended by children from families of relatively high social status while the small budgets of kindergartens attended by children of poor and uneducated parents cannot afford any of these services and families may even struggle to obtain clothes appropriate for the season of the year in which to dress their children for the trip to the kindergarten. While kindergarten teachers (too) rarely fail to mention in connection with the challenges related to children of poor and uneducated parentsthat "they come from a stimulus-deficient environment," the kindergartens attended by these children tend to be considerably more "stimulus-deficient" than the kindergartens of children from "stimulus-rich" background environments.

The kindergartens of children from stimulus-deficient background environments tend to be considerably more stimulus-deficient than others.

Families living in dire poverty excluded from society tend to have little trust in public institutions including kindergartens. No efforts seem to be made, however, to improve the relationship with parents and encourage earlier kindergarten enrolment for children of poor and uneducated parents even where place availability is not a problem. In defiance of the pertinent provision of the Public Education Act, the majority of education providers and institutions do not consider it their duty to "lure" children into the kindergarten at the age of three if they come from direly poor families whose financial difficulties, mistrust or weary resignation prevent them from taking the initiative.

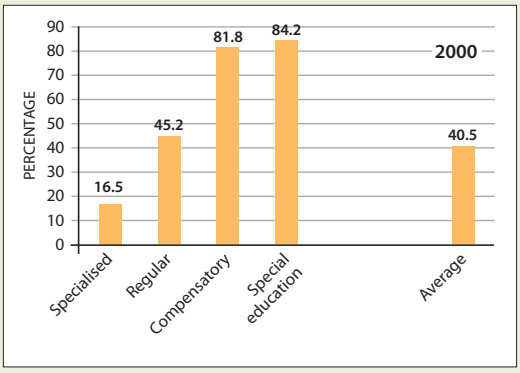
3. *Selection at the start of primary education.* Institutional selection procedures applying to children starting formal education substantially increase the probability that the disadvantages children of poor and uneducated parents bring with them will become more pronounced over their primary school years. The results of school readiness assessments assign a far higher than average proportion of children of poor and uneducated parents to special education classes or so-called reduced-size compensatory classes, and inadequate kindergarten education greatly contributes to this outcome. As revealed by a study conducted in 2000, 36.8 per cent of sixth year Roma students attending special education classes had not attended kindergarten at all while the corresponding proportion for sixth year Roma students attending regular classes was only 4.9 per cent (HAVAS, KEMÉNY & LISKÓ, 2002). A markedly high proportion of Roma students and an even higher proportion of children who are wards of the state are referred to special education classes. (See the box *The overrepresentation of Roma and orphaned students in special education classes.)*

Institutional selection procedures applying to children starting formal education substantially increase the probability that the disadvantages of children of poor and uneducated parents will become more pronounced over their primary school years.

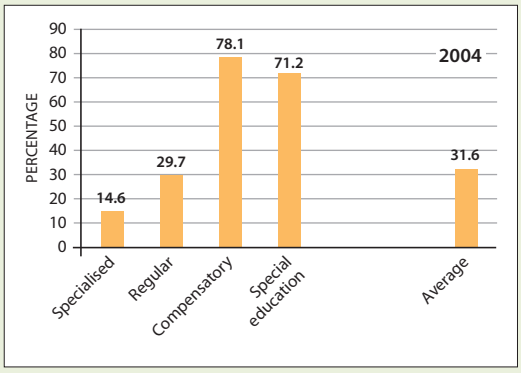
Children who are assigned to special education classes in the first year of schooling have very little chance of being transferred to regular classes at a later stage and if they remain in special education classes their further education prospects will become fatally limited. In 2004, for instance, 16.8 per cent of eighth year special education students did not continue their studies at all and

## THE OVERREPRESENTATION OF ROMA AND ORPHANED STUDENTS IN SPECIAL EDUCATION CLASSES

Roma students are extremely unevenly distributed across different types of school class (HAVAS, KEMÉNY & LISKÓ, 2000; HAVAS & LISKÓ, 2004). Their proportion in specialised classes providing higher than average quality educational services is very low while they are represented in compensatory and special education classes characterised by reduced academic standards in a markedly high proportion.




[SOURCE] HAVAS, KEMÉNY & LISKÓ (2000), based on data from 198 schools.

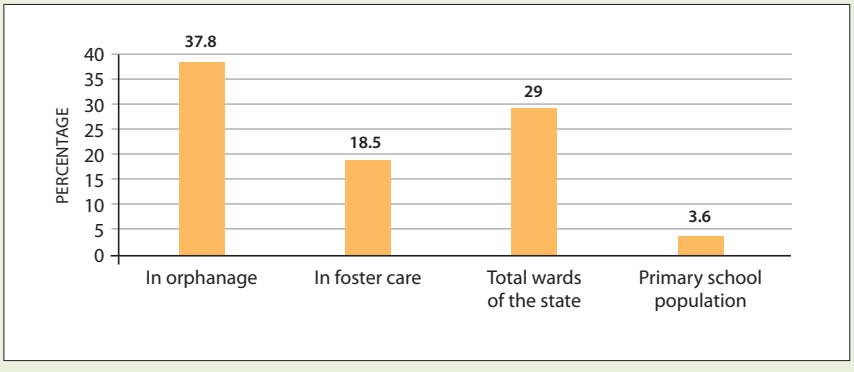



[SOURCE] HAVAS & LISKÓ (2004), based on data from 553 schools.

[FIGURE 5.1]
Proportion of Roma students in various class types, 2000, 2004

In 2004 3.6 per cent of the total primary school population attended special education classes. Although we do not have precise data on the corresponding proportion among Roma primary school students, a conservative estimate based on research results by HAVAS, KEMÉNY & LISKÓ (2000) and HAVAS & LISKÓ (2004) and on data from a national representative survey from 2003 (JANKY, KEMÉNY & LENGYEL, 2004) puts this figure at a minimum of 15 per cent. Data collected by child protection services in 2004 reveal that the proportion of students receiving non-integrated special education was almost twice as high among wards of the state and two and a half times as high among children living in orphanages.

[FIGURE 5.2]
Proportion of ward of the state students receiving special education, 2004




[SOURCE] Child protection services, 2004.

47.4 per cent enrolled in special vocational training schools which effectively constitute a dead end (HAVAS, 2004). The high incidence of the classification of children as having *special educational needs* is to a considerable extent motivated by education providers' and institutions' financial interests. The declining student numbers and the higher-rate special education allocations prompt local authorities to provide services for students with special educational needs because the resources thus becoming accessible can be used to finance the maintenance of their institutions.

The majority of public education institutions are not equipped to meet the professional requirements of special education. Public education funding is adjusted to the assessment of children's/students' needs and entitlements rather than to the *de facto* availability and quality of services.

The majority of public education institutions are not equipped to meet the pedagogical and teaching requirements presented by children with special educational needs. In Hungary public education funding is adjusted to the assessment of children's/students' needs and entitlements rather than to the *de facto* availability and quality of services. The use of funding is accordingly audited in terms of financial and accounting accuracy while its professional efficiency and outcomes are not inspected beyond the fulfilment of the prespecified minimum conditions. A practical consequence of this model is that the diagnosis of a child as having special educational needs is not followed by compensatory instruction but the child is placed in a class where the quality of teaching and the general conditions of education may be substantially inferior to the usual standards. This is especially true for special education classes offered by regular primary schools.

It is no use setting a two and a half times higher rate of per-student funding for children with *special educational needs* if these grants are more than likely to be absorbed by the schools' overall budgets and spent on services unrelated to the needs of these children or even used to cover the expenses of segregation (substantially reducing class sizes).

The results of an analysis carried out in 2004 reveal that 93.4 per cent of general primary schools also providing special education classes merge the higher rate funding received for students attending these classes into their general budgets and fail to spend it on the enhancement of special education services (HAVAS, 2004). Several special education programmes are run without qualified special education teachers and as many as 8 years of students may be taught together in defiance of the regulations, which specify a maximum of three years of students in a class. In 2004, 30.4 per cent of primary schools providing special education classes had no qualified special education teachers among their staff and 27.2 per cent of the schools merged more than the legally permitted number of years in a class (HAVAS, 2004).

Educational prospects are not significantly better for children who are assigned to reduced-size compensatory education classes in the first year of primary school. As shown by a number of studies, these classes follow a simplified curriculum and thus increase the gap between these students and their typical peers with the result that when the students are transferred to regular classes, they cannot keep pace with their new classmates (GIRÁN & KARDOS, 1998; HAVAS, KEMÉNY & LISKÓ, 2002; HAVAS & LISKÓ, 2006).

Recent education policies encouraging integration and the redesigned funding system have led to a decrease both in the number of segregated compensatory and special education classes and in the number of students assigned to these programmes. The outcomes of the changes have provided unequivocal evidence that the earlier practice of separating student groups was unnecessary in a significant proportion of cases and only had the effect of reinforcing disadvantages. The current positive trend, however, still leaves a considerable number of children of poor and uneducated parents becoming the powerless victims of segregative education policies. It is at the same time highly exceptional for children of poor and uneducated parents to be admitted to specialised (advanced or bilingual) programmes, which start in year one, offer higher educational standards and substantially improve the chances of a successful student career for the future.

The selection process applying to first year students is reinforced by the choice of parents of relatively high social status to enrol their children in a non-local school in their home town or in another settlement.

The selection process applying to students entering primary school is reinforced by the choice of parents of relatively high social status not to enrol their children in their local schools but send them instead to another settlement or a non-local school in their home town. (See the box *Non-district school attendance*.)

The social compositions of student rolls at various educational institutions therefore display far more extreme differences than could be expected from the composition characterising the given settlement or town district. This has the consequence that the education standards of the various institutions are similarly divergent commencing with the first year of formal schooling. In the summer of 2007 a ghetto school maintained for decades in the slum district of a county town was closed down. The students were transferred — individually, in pairs or threesomes — to various same-year classes in high-prestige schools in the town. The competencies of upper-primary students transferred from the ghetto school were found to be several years behind the average competencies of host classes.

In year five several schools assign the best students of the year to an advanced track, which has the consequence that the education services of the institution are divided into an advanced programme preparing students for further education and a basic programme providing "remedial" education.

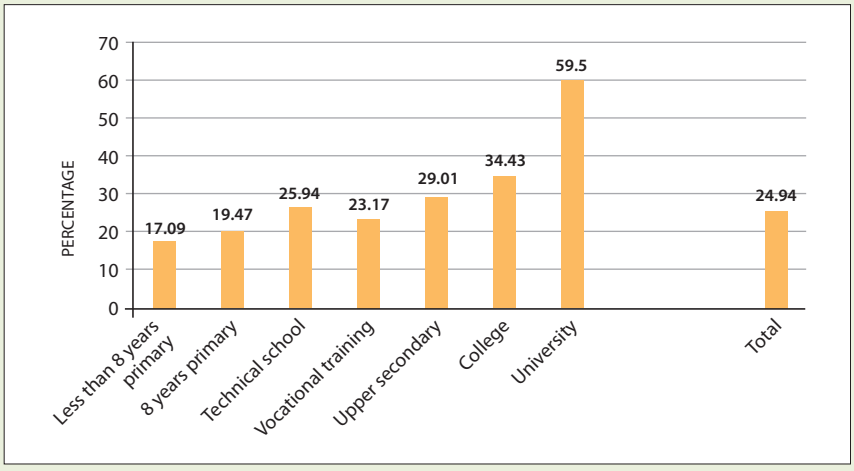
4. *Selection in primary education.* Further selection practices appear in later years. Advanced education programmes (subject specialisation, bilingual education, etc.) are organised for classes of students in upper years. Whether a student is admitted to one of these classes is determined through the same selection mechanisms as admission to the first year. In year five several schools assign the best students of the year to an advanced track, crossing class boundaries, which has the consequence that the education services of the institution are divided into an advanced programme preparing students for further education and a basic programme providing "remedial" education following, once again, the logic of social selection. A large share of students from families of relatively high social status transfer to 6 or 8 year secondary schools after year four or six of primary education. Primary schools having a high proportion of students from disadvantaged backgrounds, where the quality of education tends to be poorer than usual, are more likely to be affected by this process.

At the same time, the proportion of children of poor and uneducated parents and, especially, Roma students gradually decrease in upper years primarily as

## NON-DISTRICT SCHOOL ATTENDANCE

The results of the National Assessment of Basic Competencies reveal that in 2006 approximately every third eighth year student (31.46 per cent) attended a non-district school.* It is especially easy to choose a non-district school in large towns where there are several schools but some choice is available to parents in every settlement where more than one school is provided. In one-school settlements — 75 per cent of settlements in Hungary — however, choosing a non-district school means that the child has to commute to another settlement. As shown by the survey data, a fairly high proportion of children living in these one-school settlements attend non-district schools and the smaller the settlement, the higher the proportion of commuting students. The proportion of eighth year students attending non-district schools is 19.85 per cent among students living in villages having a population of 2–5 thousand inhabitants, 20.57 per cent among those living in villages of 1–2 thousand inhabitants and 24.94 per cent among those living in smaller villages. (These figures do not include those who attend schools in other settlements because their home settlements do not have a school or only offer lower primary education since these students are classed as attending their district schools.) It is also demonstrated by the data that the probability of non-district school attendance increases with the mother's educational attainment, i.e., non-district schooling substantially increases social selection between schools. This observation holds for all settlement types. As an illustration, *Figure 5.3* displays the figures characterising villages having a population of fewer than a thousand inhabitants by the mothers' level of education.

[FIGURE 5.3]
Percentage of students attending non-district schools as a function of mothers' educational attainment, home settlement: fewer than one thousand inhabitants




[SOURCE] Based on data from the National Assessment of Basic Competencies, 2006.

* Figures computed by Gábor Kertesi.

a result of grade retention and dropping out. A large share of overage students are recommended homeschooling, which is a recourse used by schools in an effort to escape from the responsibility of their education. (See the box *On homeschooling.)*

A considerable share of students displaying low educational achievement fail to complete primary school or only complete it at the age of 16 or 17 (2–3 years later than usual), which in itself reduces their chances of continuing their studies in secondary education. Moreover, those completing primary education later than usual are the most likely to be hampered by serious deficiencies in skills and competencies or to be functionally illiterate.

## ON HOMESCHOOLING

§7 of the Public Education Act states that "Compulsory education may be satisfied by school attendance or homeschooling — as chosen by the parents." Sections (3) and (4) of §69 add that "Home-schooled students are exempted from all compulsory classes at school" and "The achievements of those who are exempted from attending compulsory classes at school shall be assessed at times specified by the head master and by methods specified by the teaching staff." This means that in principle homeschooling should only be an alternative to formal education in exceptional cases (for outstandingly gifted students, students excelling in a special area, such as arts, sport, etc., children living with profound physical disabilities or suffering from chronic illnesses requiring regular treatment, etc.). Many schools, however, recommend homeschooling for students who are over-aged, difficult to manage or have poor and uneducated parents. Formally, the transfer to homeschooling must be initiated by the parents but in many cases this happens under informal pressure from the school, which is its means of trying to escape from the responsibility of educating unusually problematic children.

In these cases the authorisation of homeschooling essentially amounts to the school relinquishing the education of these students and treating the end of year examinations as a mere formality. The regulations were tightened in 2004 and the authorisation of homeschooling for students from disadvantaged backgrounds was made contingent on the approval of child welfare services. This measure, however, has not led to a decrease in the proportion of home-schooled children; a slight increase has in fact been observed in the last two school years. Between 2001 and 2005 the share of home-schoolers remained in the range of 0.61–0.63 per cent, while it rose to 0.64 per cent in 2006 and to 0.69 per cent in 2007 (Education Statistics, 2001–2007). This slightly higher value still does not appear to be very high but taking into account that the great majority of home-schoolers are children from disadvantaged backgrounds and, within them, children of Roma ethnicity, the probability of home schooling among this social group must be substantially higher. In 198 schools observed in 2000, 3 per cent of Roma students and 0.4 per cent of non-Roma students were exempted from regular school attendance, i.e., Roma students were eight times as likely to be granted exemption (HAVAS, KEMÉNY & LISKÓ, 2002).

Moreover, there has recently been an increase in incidents implying that in certain schools difficult to manage and/or overage children of poor and uneducated parents are informally transferred to homeschooling and permitted not to attend classes regularly. A recent extreme case in point is the school in Kerepes, where a few students were required to attend school only twice a week even though they were not officially home-schoolers.

The recent explosion of participation in secondary education has had little impact on the schooling of children of poor and uneducated parents, especially Roma students.

5. *Secondary education.* The recent explosion of participation in secondary education has had little impact on the schooling of children of poor and uneducated parents, especially Roma students. The rate of enrolment in secondary schools offering qualifications has displayed a very slow increase among them. While 80 per cent of an average primary school class continue their studies at secondary schools offering qualifications, the corresponding proportion is scarcely more than 20 per cent among the Roma (HAVAS & LISKÓ, 2006).

Uneducated parents lacking vocational qualifications, who are little equipped to grasp and appraise the consequences of the radical changes in the economy and in the education system, tend to view vocational training as a continuation of the tradition that emerged during the communist Kádár regime. At that time vocational training indeed offered an opportunity of social mobility to children from unskilled families by providing vocational qualifications after three years of training, which guaranteed employment. A considerable share of these parents still harbour illusions of this sort with regard to vocational training and fail to observe the radical shift brought about by the regime change.

The primary schools to which the issue has the highest relevance often contribute to the persistence of these illusions. They fail to inform parents of the expected consequences of their decision and, in some cases, teachers may even share the parents' illusions. What primary schools are concerned with is that every final year student should submit an application and that no-one should end their formal education at that point. In the case of children of poor and uneducated parents who are over-aged and/or have substandard academic results, schools see the solution in nearby vocational training schools with which they have established close contacts for precisely this reason. This practice has led to the emergence of a network of vocational training schools of low standards, which are ready to admit functionally illiterate students struggling with serious knowledge deficiencies and a lack of elemental competencies, thus absorbing a substantial share of children of poor and uneducated parents successfully completing their eight years of primary education. This solution is accompanied by the lowering of academic requirements and training standards to a minimum level, the fatal devaluation of the vocational qualifications offered by these institutions and an all but hopeless narrowing of labour market opportunities. The situation is further aggravated by the exceptionally high secondary school dropout rates among children of poor and uneducated parents. Half of Roma students enrolling in secondary education drop out within their first two years (LISKÓ, 2002). That is, all in all, at most 4–5 per cent of Roma students attain qualifications in each year and these are often of dubious quality.[1]

[1] The issue of vocational training and dropping out are discussed in Chapter 4.

## ■ SUGGESTED SOLUTIONS

Children of poor and uneducated parents must be given the opportunity to attend kindergartens regularly and full time from the age of three.

1. Children of poor and uneducated parents must be given the opportunity to attend kindergartens regularly and full time from the age of three. To achieve this goal
- more kindergarten places must be created in settlements and town districts where there is a shortage of places and
- new kindergartens must be opened in settlements where there are currently none but the number of local children justifies a local kindergarten;
- a record must be kept of all kindergarten-age children;
- the relationship of kindergartens and disadvantaged families must be improved with the help of other actors involved (health visitors, child welfare services, etc.);
- programmes helping the child to settle in should be introduced with the participation of parents;
- the conditions for early years' development and education must be created;
- kindergarten programmes should be adjusted to the children's assessment results and other important details;
- the pertinent regulations must be amended.

The social and ethnic selection applying to children entering formal primary education must be substantially reduced.

2. The social and ethnic selection applying to children entering formal primary education must be substantially reduced. An essential component of this change is the prevention of professionally unjustified decisions which assign a considerable share of children of poor and uneducated parents to special education classes.[2] The practice of diagnosis based per-student funding allocation, which has the effect of encouraging schools to classify children as having *special educational needs* (SEN) must be abolished and replaced by service based funding. In parallel with the introduction of integrated education for children with special educational needs the specialised programmes currently offered by some general primary schools should be gradually phased out as these are predominantly used as a means of ethnic and social segregation. In the meantime schools should be regularly inspected in order to ensure lawful operation since some of the specialised programmes currently fail to observe even the most basic regulations. The practice of assigning first year primary school students to classes on the basis of social and ethnic origins must be terminated. Significant differences between the classes in terms of the proportion of children of poor and uneducated parents must not be tolerated.

In settlements having more than one school and in schools having more than one class in a grade all forms of school segregation must be gradually diminished.

3. In settlements having more than one school and in schools having more than one class in a year, all forms of school segregation must be gradually diminished. §66 of the amended Public Education Act setting out rules of establishing school district boundaries and the complete ban on primary school entrance examinations provide an appropriate legal framework for this goal. Outcomes

[2] This proposal also pertains to the issue of special educational needs (SEN), which is discussed in Chapter 6.

should be continuously monitored and analysed in an effort to refine and improve the integration process as needed. Schools should be regularly inspected to ensure that the integration process is sensitive to students' needs and the principle of equal treatment is observed at all times and to prevent the reduction of between-school segregation from contributing to within-school segregation.

An important factor to consider in implementing the desegregation programme is the proportion — if any — of private educational institutions in a given settlement. In some relatively large settlements middle class children are likely to attend private schools and this trend may extend to several more settlements in the foreseeable future. The educational integration programme is at risk of failure if private schools become the preferred choice for the middle classes while relatively poor social groups continue to attend local government schools. Standardised, universal regulations and academic requirements must therefore be introduced in order to ensure that private schools providing regular educational services financed from public sources take their share of the responsibility of providing high quality education for children of poor and uneducated parents.

The incidence of student migration must be reduced.

4. The incidence of student migration must be reduced. The migration of students from families with relative high social status to non-district schools promotes segregation even if children of poor and uneducated parents are in the majority in their home settlements. To discourage migration, authorities must be consistent in adhering to the principle that *the costs of commuting* must be borne by the family and no aid of any kind may be granted by the state. Schools' eligibility for commuter support allocations and school bus subsidies should be restricted to cases when the students need to commute to their district schools.

Comprehensive reform programmes are needed.

5. The problems of ghettos and near-ghetto areas call for comprehensive reform programmes.[3] In ghettos and regions or settlements at risk of ghettoization comprehensive programmes involving parallel developments in several areas — employment, housing, education, welfare and health services, etc. — should be given priority as the isolated enhancement of educational conditions cannot reasonably bring about more than limited improvement. Special non-competition based resources must be allocated for these programmes since the most disadvantaged settlements do not have a fair chance in competitions for funding. The necessary infrastructural developments and investments must be implemented and equipment supplies and other facilities must be substantially improved.

Differentiated wage incentives should be introduced to recompense extra achievements.

6. To curb the adverse selection processes applying to teaching staff, teachers' pay schemes should be reformed to allow for differentiated wage incentives in recompense for the extra efforts indispensably required for the successful

[3] A similar proposal is discussed in Chapter 11 concerning employment policies.

education of children of poor and uneducated parents. To prevent local governments from making arbitrary decisions of association formation disregarding their students' interests, the regulations must clearly set out the conditions, including quantitative criteria, under which a small school or lower primary school may be sustained and those under which a school should be closed. In addition to student roll thresholds adjusted to settlement type and to the commuting distance between the institutions of the association, infrastructural parameters should also be specified.

Considerations of educational equality should be given special emphasis in pre-service and in-service teacher training.

7. Considerations of educational equality should be given special emphasis in pre-service and in-service teacher training and it must be ensured that the necessary pedagogical competencies are invariably acquired. There should be a sufficiently high proportion of children of poor and uneducated parents in schools participating in teaching practicum programmes for trainees and the programmes should compulsorily involve visits to schools where trainees can observe the education methods successfully used in teaching such students. Teacher training curricula should include at least one semester devoted to the pedagogical challenges specific to the education of children of poor and uneducated parents and to the educational methods and procedures suitable for meeting these challenges. In-service teacher training programmes should include at least one compulsory module preparing teachers for the challenges of classes with a heterogeneous social composition of students and equipping participants with the pedagogical competencies needed to meet these challenges.

Secondary education participation rates must be substantially improved among children of poor and uneducated parents. Civil education initiatives should be subject to standardised quality assurance and the professionals involved in these initiatives should receive standardised training.

8. Secondary education participation rates must be substantially improved among children of poor and uneducated parents. To achieve an improvement in secondary education participation rates, the standardised assessment and evaluation system currently under implementation should, for each primary school, incorporate data on secondary school enrolment rates and secondary education careers among former students. These indicators should also be part of primary school self-assessment systems. In the long term an incentive scheme could be implemented rewarding schools that achieve outstanding results in preparing children of poor and uneducated parents for the successful completion of secondary education in institutions offering qualifications. Efforts should be made to implement general improvements and methodological enhancements in civil education initiatives providing remedial instruction; these initiatives should be expanded and granted uninterrupted and reliable financial support. In line with the overall standardisation process, the programmes should be subject to standard quality assurance and a training scheme should be developed for the teachers and other professionals involved. Current student grant schemes targeting children of poor and uneducated parents should be reinforced and their long-term reliability should be ensured. Children of poor and uneducated parents attending secondary schools offering qualifications should be unconditionally entitled to student grants.

The incidence of students dropping out of secondary education must be substantially reduced.

9. The incidence of students dropping out of secondary education must be substantially reduced. To achieve a decrease in secondary school dropout rates, data related to dropping out should be mandatorily provided for education statistics. Primary schools should be given regular feedback on the secondary school careers of their former students, including a possible event of dropping out. Secondary schools characterised by higher than average dropout rates should be subject to compulsory quality improvement programmes connected to the standardised assessment and evaluation system. Initiatives to establish or expand *second chance* schools and institutions should be encouraged. The conditions and extent of state support for these institutions should be clearly set out.

Support policies driven by considerations of equal opportunity should be consistently enforced.

10. Support policies driven by considerations of equal opportunity should be consistently enforced. To be able to deliver support policies promoting equality of opportunity, reliable methods must be established for the collection of data concerning children of poor and uneducated parents. The current system of educational data collection should be redesigned to permit the monitoring of segregation/selection trends and the inspection of general processes taking place in public education for lawfulness. To ensure efficient public education spending, the information related to financing and the information related to assessment and evaluation should be accessible to education providers in a form that allows the relationship between them to be investigated. The central administration must make it clear that segregative education management practices shall not be tolerated and supplementary funding shall only be granted to education providers who strictly enforce the requirements set out in the Public Education Act and observe the principle of equality in their use of the supplementary funding. The compulsory preparation of equality of opportunity programmes in public education may constitute an important step in the fight against educational segregation provided that the programmes are planned with reference to a pre-defined set of considerations. Education providers must ensure that the equality of opportunity programmes are delivered in the institutions under their authority, i.e., that they are incorporated in the educational programme of the institutions in concordance with educational and equity considerations.

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# 6 Caring for children with special educational needs (SEN) and their rehabilitation

[Valéria Csépe]

The standards of the education of SEN children are indicative of the entire education system and their inadequacy is detrimental to the entire education system.

The education of children and young people with *special educational needs* (SEN) is a special domain within the public education system. Although the education of SEN children — ensuring that they acquire the knowledge and competencies specified by the curriculum of the given public education system — is tied to special professional conditions, the feasibility of these conditions and their functional quality is indicative of the quality of the entire education system, and their inadequacy is detrimental to the entire education system.

The question of educating children with special educational needs is both a particular and a general issue. It is a particular issue in the sense that the current special-education method providing learning support and development geared to suit individual needs identified by utilizing modern, complex diagnostic assessment procedures, requires the participation of highly trained professionals and the availability of high quality and specialized tools, all of which need to be organized into a system governed by regulations. At the same time it is also a general issue, in the sense that the necessary and sufficient conditions for educating children with SEN can only be created if the general conditions of education are also adequate, i.e., the professional conditions allow the fulfilment of school requirements, children receive individualized education, the categories of SEN and *below average achievement* caused by other factors are kept separate and their diagnoses and service provision are differentiated. The appropriate treatment of the issue of SEN therefore affects all participants of the education system. *The standards of the education and care of children with special educational needs, its successes and failures, also affect those who do not belong to this special group of children.*

SEN children are children with special rather than peculiar (as the Hungarian translation of the term suggests) educational needs or children suffering from other types of, and more severe, difficulties, who need rehabilitative support. The Hungarian translation of the English term Special Educational Needs (SEN) is an improvement over the more widely used term roughly equivalent to the English word “deficient” but it still deviates from international professional practice and OECD terminology, and the Hungarian practice, which tends to be guided by statistical and financial considerations, still, to some

extent, carries with it the concept of deficiency. This appeared explicitly and formally in the Public Education Act of 1993 and still appears today implicitly in the way diagnostic classes are categorized according to unusual criteria. It also follows, in a number of respects, that Hungarian attitudes towards SEN constitute a barrier to addressing the issue in a satisfactory way and to ensuring that the public recognise that the question of special education services offered to SEN children not only concerns those directly affected but also public education policy as a whole.

The question of special education services offered to SEN children concerns public education policy as a whole.

## ■ CONCEPTS AND MODELS

The first set of regulations concerning children in need of special education and rehabilitation services were published as part of the Public Education Act of 1993, which signified a major breakthrough at the time. The regulations appeared progressive at the time although the introduction of the dichotomy of "deficiency – other deficiency" conveyed a general and not necessarily positive attitude towards the issue of SEN that remained the standard for several years. The contents of the Act have been substantially refined, improved and updated over the one and a half decades of its existence, albeit with regressive consequences in some areas (see the section on current regulations below). The standards of service provision as identified by statutory statements, the assessment of needs and diagnosis, institutional specialization, a wide range of professional competencies and the regulations on funding have constantly evolved — partly in response to the reactions of affected groups but mainly in response to those of the institutional network and funding bodies. This is one reason why the end result has been a characteristically hybrid system which cannot, with the best intentions, meet the standards expected from OECD countries. The causes behind this are manifold and thus the identification of the anomalies of the system's operation requires a complex approach, which cannot be independent of a comprehensive analysis of the current system and conditions of public education. *SEN is first and foremost a professional issue* and thus a professional consensus must be reached before the nature of service provision, its human capital prerequisites, equipment requirements and institutional structure can be adequately defined or a development plan which does not lose sight of sensible and sustainable funding can be brought forward. An analysis of these questions is a precondition for the gradual development of a transparent provision programme where decentralized operation is continuously improved and enhanced, the necessary information systems are constructed and the service delivery and the use of financial resources are monitored centrally.

In OECD countries, most SEN services adopt either of two different models, both of which, however, build on the same professional principles:

In OECD countries, services adopt either of two different models, both of which build on the same professional principles: *1.* a system based on a detailed profile of needs, and *2.* a system based on diagnostic categories.

1. a system which is based on a detailed profile of needs, specifying areas to be developed, providing evaluation of interventions and a regular monitoring of progress;
2. a system which is based on diagnostic categories adjusting service provision protocols and funding to outcomes of diagnostic assessments.

Due to its considerable costs, the former model is typical of the most highly developed countries with high revenues (such as Finland). The main reason for the high costs is that a complex assessment of SEN, individualized services and the continuous monitoring and correction of outcomes requires a large number of highly trained and specialized professionals in the public education sphere and the system of service provision is also highly equipment and infrastructure-intensive.

The assessment of SEN requires standardized, complex diagnostic test-batteries, and the identified categories of SEN are paired with protocols specifying intervention procedures.

Provision systems based on diagnostic results presuppose the availability of complex standardized diagnostics programmes for the assessment of SEN, and protocols specifying educational service provision and interventions need to be assigned to each diagnostic category. A complex diagnostic framework and test-batteries are a necessary but not a sufficient condition of adequate SEN service provision, since educational procedures assigned to the different diagnostic categories also need to meet professional requirements without fail, and funding principles need to be established with reference to the relevant diagnostic and intervention protocols. In the absence of these conditions, it is impossible to maintain a transparent, viable, sustainable and fundable programme. SEN service provision based on identified needs and those relying on diagnostics share the same professional principles of public education, namely, the set of general and the set of special — i.e., extra — educational needs of children participating in education programmes.

It is essential to define a professional framework model in order to assess the SEN services of a given country, since this framework is needed to identify local special educational needs, to determine the set of minimally required services and find a sensible way of using funds. Hungarian public education encompasses a wide range of professionals and institutions involved in providing services for the current categories of SEN. Since, however, different sets of considerations are applied in defining their obligations — there are frequent overlaps in both duties and competences.

Distinguishing underachievement at school from the diagnostic categories under the heading of SEN clearly benefits both those involved and those who maintain public education.

*The model* discussed below only *functions well if poor school performance can be clearly distinguished from atypical performance associated with SEN*, since the two must have distinct solutions in public education. Distinguishing underachievement at school (e.g., below average reading performance) from the diagnostic categories under the heading of SEN (e.g., dyslexia) clearly benefits both those involved and also those who maintain public education, both from an economic and a narrowly or broadly defined professional point of view. The reason being that it clearly matters what factors are responsible for significant deviations from average school performance; whether the children involved have special needs due to various problems which require different types

of intervention (multiple disadvantages, ethnicity and/or SEN) or else whether the school struggles with difficulties (anomalies of organization or service provision, professional shortcomings, etc.). It is essential to define the type of compensatory education aimed at equalizing significant deviations in school performance, to decide who is responsible for assessment and how this should be done, who delivers corrective instruction and where, and what means are available for securing the necessary conditions and how much all that would cost.

*Figure 6.1.* shows the distribution of general and special educational needs of children participating in public education and the need for rehabilitative instruction with respect to education and special education service provision. The model defines general and special educational needs for the population participating in public education, which is assumed to be of standard quality. Services targeting special educational needs identified as such aim to provide maximum support concerning the acquisition of knowledge and competences specified in the general curriculum. Educational content is shared by a large proportion of children and is delivered in a shared class and/or school, i.e., children receive integrated education, which is the default case of education provision and a basic right of children. Integrated educational content is delivered to a substantial proportion of typically and atypically developing children [Groups 1, 2.*a* and 2.*b* in the figure]. A large share of the assessment and support of additional educational needs takes place in regular establishments attended by the children; remedial instruction requires varying amounts and varying types of specialist knowledge.

It may appear to be the case that the assumptions of the model do not concur under current conditions since it is assumed that public education is delivered by educational establishments of equal professional standards and with equal working conditions, i.e., the conditions of acquiring the knowledge and competences specified by the general curriculum are uniformly given and it is the *children's* abilities and aptitudes which are the sources of any special or extra educational needs. The model fits these situations the best and the professional assessment of extra needs is also the most straightforward in these cases. Other chapters in this volume indicate, however, that Hungarian public education system is fraught with anomalies (ability and ethnicity related segregation, variation by settlement structure, strong socio-economic effects, unsatisfactory treatment of disadvantages, etc.), which lead to a system of both varying professional standards and of unequal financial resources — a state of affairs which is also shown by international assessments. This does not mean that the model is unsuitable but rather that Group 1 (where no remedial education is needed) will be smaller than expected. It also follows from the model that due to the uneven standards of the Hungarian education system, Group 1 will be of a substantially smaller size than would be expected on a theoretical basis. Variations in testable performance therefore indicate that there is a greater need for special education than would be expected otherwise and this need is distributed between Groups 2.*a* and 2.*b*.

[SOURCE] KATONA (2007).

DISTRIBUTION OF EDUCATIONAL NEEDS

**1.** In an average educational establishment, there are no barriers to the acquisition of the knowledge and competences specified by the general curriculum, no special needs have been identified for pupils in this class.

**2.*a*.** As in 1. above but with observed problems in achievement, the required special procedures are determined by the teacher. Remedial and complementary instruction is delivered by teachers with support services provided as needed (school psychologist, educational counselling services).

**2.*b*.** As in 1. above but performance is significantly below average, special educational needs are identified by a specialist (SEN–*b*). A standardized diagnostic framework of tests is required for complex professional diagnosis. Pupils receive integrated education, special instruction is provided as an additional service. Specialised special-education teachers (or, if needed, specialised institutions) are involved in the service provision.

**3.** Special educational needs and the need for rehabilitative instruction are identified by specialists, intensive professional intervention is required (SEN–*a*). A standardized diagnostic framework of tests is needed for complex professional diagnosis, the full educational programme is delivered by special education teachers. Classes take place in a specialised establishment for the duration of the programme.

[FIGURE 6.1]
Distribution of educational needs

The large variation in the number of children identified as having *special educational needs* (SEN) (between counties, settlements, schools) probably stems from the fact that the two groups of children, who share schools and classes but require fundamentally differing professional approaches, are not, in actual practice, distinguished reliably. The main problem is that while the assessment of the extra needs of Group 2.*a* and their remedial instruction are educators' tasks, the children in Group 2.*b* need a specialist diagnosis and education classes led by a specialist instructor. *The current altogether unsatisfactory conditions of SEN diagnostics and partially unsatisfactory conditions of special instruction lead to an overrepresentation of SEN*. As a result of professional shortcomings, achievement problems of different kinds are confounded, i.e., SEN fails to be distinguished from similar cases, even though the accurate assessment of SEN remedial educational needs and non-SEN complementary educational needs is more important in Hungary than in countries with education systems of more even standards.

The large variation in the number of SEN pupils stems from the fact that the two groups are not distinguished reliably, achievement problems of different kinds are confounded.

It is a general characteristic of children in Group 2 that they all attend the same schools but receive different kinds of help, their needs are assessed by different methods, different interventions are utilized and their remedial instruction is provided by different people. Group 2.*a* encompasses children whose needs can be assessed by *a suitably trained educator* once their performance difficulties have been noted, and the educator also has the competence to correct these difficulties through minor modifications to teaching procedures. Additional support services can be provided by the school or outside sources (e.g., educational counselling service centres[1]) as needed. In this case, the

[1] The network of educational counselling service centres is a significant professional achievement for special educational needs services in Hungary. The professional profile of the network may need some enhancement but not at the expense of professional independence. Educational coun-

While educational diagnostic procedures may be suitable for the identification of extra educational needs which can be successfully addressed by an educator, they cannot replace a complex diagnosis by a specialist if any form of SEN is suspected.

educator in fact provides a standard service, which is essentially personalized instruction adjusted to the children's progress. The educator's task may be assisted by norm-based screening procedures of a broad application, which are designed to identify any extra needs that can be met by the educator. While educational diagnostic procedures may be suitable for the identification of extra educational needs which can be successfully addressed by an educator, they cannot replace a complex diagnosis by a professional specializing in the relevant field if any form of SEN is suspected.

The other two major groups of special educational needs (Groups 2.*b* and 3 in Figure *6.1*) are those where educational diagnosis is insufficient; a complex professional diagnosis being needed that, in addition to a detailed assessment of the condition, also serves to identify the required intervention or rehabilitation service. The major difference between Groups 2.*b* and 3 (both of which are SEN) is the degree of specialization required to identify special needs and provide the appropriate services. This determines the site, methods and provider of the service and, consequently, its costs. With respect to the causes behind school performance, both Group 2.*b* and Group 3 are characterized by a pattern of atypical development and developmental and/or acquired disorders, which surface as special educational needs at school. A *specialized diagnosis* is a precondition of both special and rehabilitative education and special classes are led by professional special education teachers specializing in the relevant field either at a regular school (2.*b*) or at a specialized establishment, at least during specific periods (3).

## ■ SEN IN HUNGARIAN LAW

Group 2.*b* in *Figure 6.1* best corresponds to Entry 29.*b)* of Paragraph (1) of §121 of the Public Education Act (PEA) as amended in 2007 (SEN–*b*). The classification is based on the above model and, also in line with EU practices, the complex diagnosis and the acquisition of the integrated educational content take place within the general school framework. Unlike in the case of Group 2.*a,* however, instruction is led by a specialist (special education teacher) and special equipment and materials (e.g., special course books) are used. The assessment of the special rehabilitation needs (complex diagnosis) of children in Group 3 is conducted by professionals specializing in the given field and the curriculum is delivered with the help of special equipment, infrastructure and professionals with specialized training over the entire period or a section of the education provision. A special feature of the rehabilitative education of

selling service centres are the only places at present where every discipline is represented. They could have a special role in providing services for Groups 2.*a* and 2.*b* and in developing and running a school psychology network. There are no professional reasons for placing them among the *unified educational therapy and methodology centre institutions.*

Group 3 is that the curriculum requirements may need to be adjusted in certain cases to ensure that the basic curriculum or, if justified, the reduced curriculum can be successfully completed. Current regulations apply this rule to the categories under Entry 29.*a)* of Paragraph (1) of §121 of the PEA (SEN–*a*) (the provision model defined by the Act is shown in *Figure 6.2* below).

For a modern service-provision to be efficient, the conditions of satisfying special educational needs and providing rehabilitative instruction should be broken down to individual concrete elements, each of which apply to specific diagnostic categories within the broader group.

As a general rule, the most important tasks in connection with diagnosis-based SEN–*a* and SEN–*b* are not restricted to the refinement of diagnostic categories and the structuring of per-capita funding (albeit this may be imperative in the short-term). For a modern service-provision to be efficient, the conditions of satisfying special educational needs and providing rehabilitative instruction should be broken down to individual concrete elements, each of which apply to specific diagnostic categories within the broader group. This requirement should not be part of the Public Education Act but should constitute a separate decree. The most important elements are the need for a specialist, equipment and institutional placement broken down to specific stages of instruction.[2] Current regulations disregard the fact that the specialist help and equipment needed for the special educational needs of SEN–*b* children,[3] who usually — appropriately — participate in integrated education, also give rise to expenses even if these are lower than the costs of SEN–*a* education. The solution to the problem of over-diagnosis in the category of SEN does not, therefore, lie in limiting financial support but rather in introducing a refined funding system.

The financial protocol can be assigned to the diagnostic protocol, which has previously been aligned with the service provision protocol.

It is also clear, however, that a provision programme will only be financially sustainable provided that educational needs are assessed reliably, i.e., on the basis of complex professional diagnostics. Appropriate assessment procedures must be identified for each diagnostic category — e.g., autism spectrum disorder (ASD), dyslexia, dyscalculia — and included in the professional protocol. The financial protocol can be assigned to the diagnostic protocol, which has previously been aligned with the service provision protocol (provision expenses assigned to diagnostic categories at given stages of public education). Services should be grouped by SEN diagnostic categories of the same level of funding requirements.

Considerations of space do not allow us to discuss the 15 year amendment history of the Public Education Act here but details can be found in several publications. Although it is apparent that the amendments effective as of 1st September, 2007 were motivated by progressive aims, the current text relies on definitions of distinguishing criteria which are professionally unacceptable and obsolete, even though previously used diagnostic classification principles were more up-

[2] People with total or partial visual or hearing impairments, for instance, need different equipment at the initial stages of instruction and at later phrases, but this is not usually the case for people with mental retardation.

[3] It should be noted that while over-diagnosis was a characteristic problem before the introduction of the categories of the Public Education Act of 2007, at the same time several pupils were not assessed at all or were assessed too late.

to-date. The amended Act deals with services offered to two major classes (SEN–*a* and SEN–*b*), defines provision categories according to type of funding and the site of provision (the latter is dealt with in detail in several acts and decrees) and specifies the procedures to be applied to redefine provision classes and reassess children's conditions. (These procedure requirements are prescribed in the continued absence of a complex, standardized, nationwide diagnostic programme.)

The Act itself nevertheless attempts to specify who should be educated in mainstream educational establishments together with their typically developing peers and who can be educated justifiably in a specialized establishment. It is apparent from the clauses added with the amendments that the intention is doubtlessly to reduce the runaway financial burden that lies behind the rewording of the Act. The current text assigns the two main professionally defined groups of atypical development patterns, developmental and/or acquired childhood disorders, to two basic categories. The terminology used here is an improvement over previous versions.[4] The new categories of SEN–*a* and SEN–*b*, however, conflict with international professional practice. In §121 of the interpretative clauses of the Act, the criterion that distinguishes the two categories[5] is whether the given atypical development pattern can be traced to "organic causes" or not. Dyslexia is a clear case in point. Interventions aimed at dyslexia of organic origin are entitled to financial support but those targeting non-organic dyslexia are not; the former type pertains to a special-purpose specialized educational establishment while the latter type does not.[6] As far as we know, none of the OECD countries have introduced such an odd distinction in their legislation. The definition is especially difficult to uphold considering that Hungarian diagnostic procedures are far from being up-to-date (standardized norm-referenced procedures are not used, for instance). Another problem is the question of how to identify organic versus non-organic relationships in assessing atypical development and developmental and/or acquired cognitive disorders: the aetiology of the disorder may not be known; specialists have limited access to procedures suitable for revealing organic relationships.[7]

The new categories of SEN-*a* and SEN-*b*, however, conflict with international professional practice. Only interventions aimed at dyslexia of organic origins are entitled to financial support and can take place in specialized establishments. This is a distinction which is not used in any other OECD country.

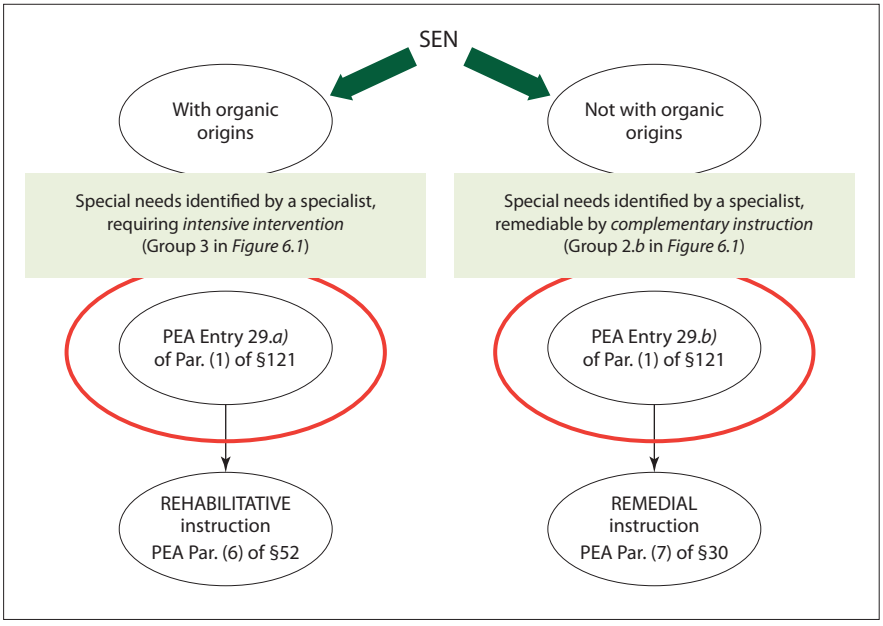
[4] Psychic and cognitive functions are no longer confused, i.e., it is recognized that learning disability patterns of atypical development can be linked to characteristic deviations in cognitive functions (attention, reasoning, language, etc.). The somewhat unfortunate Hungarian expression used in the text that roughly translates as "behaviour disorders" is a remnant of "folk psychology" — it in fact refers to disorders of behaviour control in a technical sense.

[5] Terminology constantly evolves as scientific progress is made in the various fields involved in diagnosing SEN. It would thus be sensible to describe problem areas in the main text of the Act and list diagnostic labels in an appendix.

[6] While it may appear to be a minor issue, it is reasonable to assume that dyslexia, for instance, is listed as a subgroup of SEN–*a* (why it should be a disorder of organic origins is difficult to explain,) because the Hungarian use of this diagnostic label deviates from international practice, that is, some professional groups still diagnose mental retardation as dyslexia.

[7] What is worse, the Act refers to causes and, as we well know, it is more difficult to prove cause and effect relationships than it is to reveal correlations, especially when few modern and reliable methods are available.

[FIGURE 6.2]
Services for special educational needs (SEN) as specified by the amendments of 2007 to the Public Education Act (PEA)




One of the official publications disseminated with the introduction of the Act (see *Figure 6.2*) states that disorders of cognitive functions and behaviour (for which "disorders of behaviour control" would be a more accurate term) can be traced to organic or non-organic causes and education provision is to be defined with reference to this distinction. The supplementary clauses to the Public Education Act as amended in 2007 also make it clear that since the two categories require different services, they are subject to distinct funding regulations.

*Figure 6.2* displays the main features of the two SEN categories as they appear in the current Hungarian model. SEN–*a* (which is the equivalent of Group 3, requiring intensive intervention, in the model displayed in *Figure 1*) is characterized as requiring rehabilitative instruction, i.e., pupils in this class (may) continue to attend special-purpose establishments and the service remains subsidized. SEN–*b* (which corresponds to Group 2.*b* in our model and differs from SEN–*a* in that disorders in this category are diagnosed as having "non-organic" origins) is described as requiring remedial instruction, which is to be offered at mainstream educational establishments only. While this distinction between the two types of service makes perfect sense, the model has its problems: firstly, how the diagnosis should be made and secondly, why it is assumed that remedial instruction does not require any specialist knowledge or equipment and, consequently, financial support. Diagnostic procedures would need to rely on a complex battery of standardized methods and funding should be based on the minimum costs of services as specified by the protocol for each diagnostic category. It may be concluded, then, that the

well-intentioned amendments aimed at clearing up funding anomalies have not solved the problem of SEN but have instead given rise to new problems. We may contend, however, that the current legislation offers satisfactory guarantees that the rights of children with *special educational needs* to special services are observed. It is primarily the professional conditions needed for successful delivery which present a problem.

## ■ DIAGNOSIS

The model outlined above, the relevant central regulations and the documented and documentable indicators of everyday practices will now be used to make an overall assessment of the situation. We should first note that although there are serious anomalies in current service provision, regulations and funding system, considerable progress has been made in the 15 year history of SEN legislation. As at present several areas lack the necessary conditions for integration, narrow-range solutions targeted specifically at SEN, the further decentralization of the institutions involved and the tools tried so far (competition, reorganization, PR) are not sufficient to improve the situation. The problem of SEN — similarly to that of disadvantages due to deprivation, poverty or ethnic origin — cannot be solved without restructuring and modernizing the entire public education system to create a sustainable programme.

### The most critical issues of SEN

The definition of service provision categories in terms of specific educational and rehabilitative needs.

1. The first question in connection with SEN services is — as previously mentioned — the definition of service provision categories in terms of specific educational and rehabilitative needs. The ill-advised dichotomy of organic vs. non-organic made by the Public Education Act as amended in 2007 is not only professionally incorrect but also fails to provide accurate definitions of individual components of special education and rehabilitative services, to link the appropriate components with individual diagnostic categories and to establish their actual funding requirements. SEN–*a* and SEN–*b* services are fundamentally different issues for public education in general and for the schools involved in particular. In addition to differences in the specialized knowledge required for diagnosis, they also differ in the location of service provision and centrally defined curricula that professional, legal and funding considerations call for. For SEN–*a,* rehabilitative instruction primarily relies on principles of special education and takes place at various types of special-purpose establishments (these are listed in the Amendments of 2007 to the Public Education Act). For SEN–*b*, remedial instruction takes place at mainstream schools as well as at the reformed educational counselling service centres. Where there are a large

SEN-*a* and SEN-*b* services are fundamentally different issues for public education.

number of pupils diagnosed with some category of SEN–*b*, schools providing integrated education need additional help to maintain high standards.

SEN–*a* and SEN–*b* also have distinct diagnostic requirements. The assessment of developmental anomalies affecting sensory systems and the complex investigation of motoric problems is primarily a task for medical science, and medical procedures are supplemented by the methods of disciplines such as remedial and complementary and augmentative education, which play a greater role in rehabilitative education. Various professional fields fulfil different functions in assessing mental abilities and, most importantly, in identifying different categories of mental retardation. IQ measurement is the responsibility of a psychologist (using the standardized testing methods of WISC-IV as of February 2008) while making a diagnosis of the level of mental retardation based on the indicators of IQ and social skills (RADVÁNYI, 2007) is a task for a special educator specializing in this field or, even better, for a special education psychologist (currently there is no official specialization opportunity of this kind for psychologists). For certain cases of SEN–*a* — for instance, autism spectrum disorder (ASD), Asperger syndrome, attention deficit hyperactivity disorder (ADHD) — clinical psychology and neuropsychology play a greater role, as remedial education is less competent in making the diagnosis itself, although it is fully competent in instruction and rehabilitation.

SEN–*b* requires the most complex diagnostic procedures relying on the expertise of several disciplines. Revealing the pattern of cognitive abilities is primarily a task for psychologists but the diagnosis must be made with the assistance of special educators and physicians. An educator is needed to assess conditions (such as teachability) which are important for teachers at the location of education provision, i.e., the school. SEN–*b* diagnosis is not, however, the responsibility of an educator, just as SEN–*a* diagnosis is not. As mentioned before, educational diagnostics cannot involve assessments going beyond the sorts of performance anomalies that an educator has the competencies to correct. In uncertain cases, the standard procedures of complex diagnostics (screening, prevention, etc.) can be used and the children should be referred to the appropriate service based on the results.

2. To have a reliable picture of the situation regarding SEN in Hungary, we need to examine the professional competencies of those involved in service provision, the characteristics of the programmes and methods used, the uniform and compulsory nature of applied protocols and whether conditions for these are given. With respect to SEN–*a* providers, it is useful to examine whether all professional, organizational, quality and financial sustainability requirements are satisfied at special-purpose establishments. Looking at SEN–*b* provision, the same tasks need to be performed for each educational establishment, since in this case regular and special education is the outcome of a co-operative effort between teachers and special educators, and regular and special educational needs are met at the same location, the school.

There are at least three factors contributing to the operation of a modern, uniform, transparent and financially sustainable service provision built on professionally sound foundations:
*a)* the competencies and responsibilities of *the professions involved in the services*,
*b)* the structure and operation of *provision centres*,
*c)* the control and monitoring of *the responsibilities of the state and the providers.*

■ Professions involved in the services

3. OECD countries with efficient SEN provision systems maintain complex programmes developed on the basis of a professional consensus. In these programmes, SEN diagnostic procedures, the methods of special education and rehabilitation and the qualification and training requirements ensuring appropriate professional standards are all organized into a unified system of protocols for *all professions involved.* In Hungary, professionals responsible for diagnosis, regardless of the type of institution they work for, employ untested procedures without reference to standardized norms or, at times, unlicensed copies of tests brought from abroad, some of which have been poorly adapted to Hungarian. This equally applies to screening methods (at educational counselling services) and diagnostic procedures (by professional panels). The current Hungarian system is almost unique among EU–15 countries (with the exception of Portugal) in that it lacks a nationwide diagnostic programme consisting of standardized procedures which are linked to individual diagnostic categories, governed by a uniform protocol and mandatory to use. The SEN–*a* group is affected through the assessment of cognitive abilities[8] and pervasive developmental disorders, but the "organic – non-organic" pairs of conditions of the same name are also affected as well as the entire category of SEN–*b*. The various disciplines involved have made attempts to spell out protocols for individual diagnostic categories but these have little professional utility in the absence of quality control and standardization.

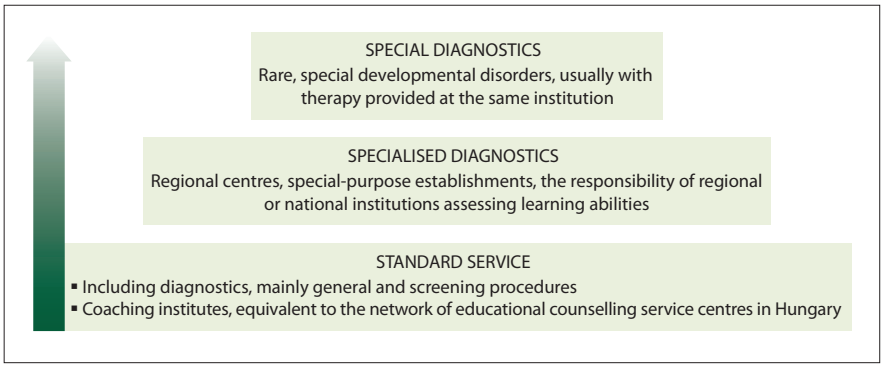
In Hungary, professionals responsible for diagnosis employ untested procedures without reference to standardized norms or, at times, poor quality Hungarian adaptations of foreign tests. The system lacks a nationwide diagnostic programme consisting of standardized procedures which are governed by a uniform protocol and mandatory to use.

4. *Since no uniform diagnostic programme exists in Hungary, there cannot be a nationwide diagnostic protocol either.* Although some of the procedures work well when used by experienced specialists, only temporary protocols may be created from them. While certain specialists involved in diagnostics receive continuous training and professional development opportunities, further training programmes that should accompany the introduction of modern diagnostic methods have not been developed; it has not been decided whether the cur-

Hungary lacks a uniform, nationwide diagnostic protocol.

[8] We hope that the introduction of the standardized Hungarian version of WISC–IV used to test school-age children (6–16 years), which is legally available as of February 2008, and related training courses give rise to a test culture which leads to positive changes. Since the assessment of mental retardation is an important question even before school, it would be crucial to introduce and use the pre-school version of the test as well.

[FIGURE 6.3]
A standard international model of diagnostics for Special Educational Needs (SEN)




rent decentralized training system — with its inconsistently monitored courses struggling with local funding difficulties — should be kept for that purpose. The diagnostic process is unfortunately fraught with overlapping obligations, cases of outstretched or clashing competencies and haphazard or incomplete sharing of duties. The overlapping obligations, frequent rivalry for fields of competence and conflicting interests between different professions and institutions involved in service provision could be avoided if the different levels of provision were subject to unequivocal regulations. A model of standard, specialized and special services is shown in *Figure 6.3*.

The training requirements and qualifications needed to obtain a license to diagnose should be more rigorous than they are at present. Teacher education curricula should include up-to-date information on SEN as part of a teacher's fundamental knowledge and skills.

5. The training requirements and qualifications needed to obtain a license to diagnose SEN and specify courses of action should be more rigorous than they are at present. This change requires some restructuring and can be implemented in the medium term. School teachers need to be familiar with basic diagnostic procedures and ready to use them in practice. They must also have up-to-date information on different types of SEN, on how to recognize them and what type of service provision is necessary. Teacher education curricula should include up-to-date information on SEN as an essential part of a teacher's basic knowledge and professional skills. Every teacher should receive theoretical and practical instruction and acquire the general principles and specialized methodology of SEN services. Teachers would thus be equipped to fulfil some of the special tasks of special education needs and could be confident in referring children to establishments offering diagnostic services[9] if a case proved to be beyond their competencies.

6. Doctors, remedial educators and psychologists who formulate the complex diagnoses should attain the necessary qualifications and work experience through special training and professional in-service training, which should be subject to strict regulations with regard to their organization, maintenance and moni-

[9] This would typically be an establishment with access to diagnostic equipment and materials, such as an education counselling centre.

The training and professional in-service training of doctors, remedial educators and psychologists who formulate the complex diagnoses should be subject to strict regulations with regard to their organization, maintenance and monitoring.

toring. Current decentralized, local in-service "teacher training" courses vary greatly both in content and in quality. It is not known how much of the financial burden of decentralized in-service teacher training schemes is covered by government grants and how much is borne by their participants. At present remedial education is the most adequately trained and organized profession involved in SEN services, although it could still benefit from some modernization. There is a shortage of psychologists specializing in SEN diagnostics, education or rehabilitation: the problem being severe in some areas (neuropsychology) and acute in some others (school psychology). The same observation holds for relevant medical professions. The situation is further aggravated by the fact that Hungarian law does not define the legal status of psychologists or regulate their professional activities (with the exception of clinical psychologists) and psychologists do not have a regulatory body or professional Chamber that could enforce high standards. The problem not only affects public education and there are several further issues (e.g., diagnostics and rehabilitative services for SEN–*a*) where the solution is not the exclusive responsibility of the Ministry of Education.

7. Cases of presumed or real errors of diagnosis or pupil placement can be referred to a professional (and juridical) appeal forum for review. Nevertheless, *quality assurance has no or minimal effect in everyday diagnostic practices* even though the desired standards are laid down almost everywhere. Genuine, standardized and mandatory professional quality control which is independent of both the provider and the maintainer and defines competencies, procedures and sanctions does not exist.[10]

*With a uniform diagnostic programme* which is defined in a protocol and specifies standardized assessment procedures for identifying diagnostic categories, *it would be hardly possible for the size or distribution of a diagnostic category to grow or decline as a function of the relative level of funding per pupil applying to that category.* One of the obvious objectives of the amendments of 2007 to the Public Education Act was to put an end to the escalation of financial support paid out for SEN–*b* services. The conduct of maintainers and schools seeking to obtain financial resources can, in fact, be regarded as natural, especially when the institution involved struggles with severe financial problems and/or large numbers of children. This should be assessed and taken into consideration by the regulator.

The interests of the organization responsible for diagnosis lie with the maintainer.

SEN could be turned into a money making label due to the absence of a modern diagnostic programme bearing in mind that the interests of the organization responsible for diagnosis lie with the maintainer and that the path of government funding intended for SEN is impossible to follow. The order to revise the categories listed under entry 29.*b)* of paragraph (1) of §121 of the Public Edu-

[10] The quality assurance programme should be based on the professional protocol of diagnostics and educational methods and the quality and results of a service should be evaluated through objective inspection methods.

cation Act as amended in 2007, for instance, simply indicates that at present the regulator can only hope to move in the direction of least resistance, since an inspection of the use of funding claimed for SEN and intended to support the education of SEN children is forbidden by current (local government) laws.

The past one and a half decades of SEN regulation efforts in the Public Education Act give the impression that the regulator has not reckoned with endeavours to obtain the higher rate of per-capita funding — these efforts are understandable to some extent but in the end militate against the interests of the children involved. As a result of the repeated rewriting of regulations following unavoidably from the absence of a diagnostic and professional quality assurance system, both the maintainer and the school lose direction, which in turn leads to misgivings even regarding otherwise practical suggestions of centralization, and to general resistance dressed in professional clothing. And this is unfortunate, since there is a great need for a centralized system of supervision and monitoring both in diagnostics and in special education and rehabilitative services. In the absence of a system of this kind, current conditions will become fossilized even if a nationwide, complex SEN diagnostic programme emerges in a few (minimum 4–6) years.

There is a great need for a centralized system of supervision and monitoring both in diagnostics and in special education and rehabilitative services.

■ Provision systems

8. In an efficient and financially sustainable service provision system, professional duties are associated with a transparent institutional system. A system of this kind is structured such that children diagnosed at or before[11] school as having *special educational needs* (SEN) are given a complex specialist diagnosis indicating specific educational needs and methods as part of a broader standard and where specialist and special diagnostics protocols and the process of diagnosis is harmonized with the educational and rehabilitative activities of schools (SEN–*b*) or specialist establishments (SEN–*a*). In Hungary, the work of specialist establishments is regulated by the Public Education Act and a number of decrees. The various establishments offering screening, diagnostics and education or rehabilitation services are locally organized into networks, which are often difficult to understand for the customer (such as micro-region associations with complicated connection and funding structures). The different levels are organized in an obscure system, the relationship between institutions with local and national responsibilities is not always unequivocal, and there are serious problems and conflicting interests with respect to funding.

Professional responsibilities should be mapped out in detail, and the responsibilities of local authorities and the central administration should be harmonized both in the diagnostic system and in the system providing correc-

[11] The atypical development or disabilities of children falling into some diagnostic categories of SEN–*a* can be diagnosed at an early stage, often at birth. In other cases (such as severe disorders of speech development), the disorder surfaces later but still long before school age, and can be diagnosed and treated given an adequate service provision system.

tive educational and rehabilitative services. Risking the charge of repetition, it should be noted once again that remedial education targeting SEN–*b* children, normally offered at the school, does not have a standardized methodology and the use of the funding intended as its resource is not, and cannot be, monitored. The current legislation makes no provision for the funding body to confirm whether the special education subsidy reaches the schools and the children concerned. This is because of a local government act that makes it impossible to inspect specific items of support transferred to local authorities under various headings on the basis of needs.

The current legislation makes no provision for the funding body to confirm whether the special education subsidy reaches the schools and the children concerned.

9. Due to the absence of a transparent system of provision levels and to the availability of different funding schemes, the services for children with special educational needs, especially as regards the category of SEN–*b* (which in practice has become a fund-raising label), do not fulfil their function adequately. The apparently simplest solution involves continuous monitoring, a revised placement of children and a levelling of funding schemes. There can be no doubt, however, that the remedial education of genuine SEN–*b* children requires easily calculable extra resources, which should be made available to the establishment providing the service. Ideally, *regional institutions* should take — both professional and financial — responsibility for the use of the funds. In the absence of regional co-ordination, the current, financially unmanageable system, which prides itself on being decentralized, will remain. Institutional decentralization is undoubtedly a great achievement for a system providing practical services but centralization is essential for professional monitoring based on diagnostic, educational and funding protocols — at a regional level, within a framework defined by the relevant departments of the central administration. While decentralized tasks can continue to be funded through the grant system (also not free from anomalies), a uniform, professionally sensible and financially sustainable system can only be developed with central intervention.

Institutional decentralization is undoubtedly a great achievement for a system providing practical services but centralization is essential for professional monitoring – at a regional level, within a framework defined by the relevant departments of the central administration.

What characterizes provision programmes in present day Hungary? Specialized establishments are not organized into a unified and co-ordinated service provision network (although a few of these were created in the framework of the first National Development Plan). Their activities are difficult to follow for participating children, parents and, at times, even for the schools that refer the children to them; the services they offer are not publicised widely enough. In the absence of co-ordinated operation and an adequate system and protocol of diagnostics, the need for intensive specialist intervention appears to be multiplied, which especially affects educational counselling services (SZAKÁCS, 2007). The task of co-ordinating the work of the *standard service* (diagnostics at educational counselling service centres and remedial education at schools), the *specialized service* (diagnosis by a national committee for assessing learning abilities and rehabilitation, education at an establishment specializing in compensatory education) and the *special service* (provided by establishments specializing in diagnostics and therapy for special developmental disorders

The task of co-ordinating the standard service, the specialized service and the special service cannot be the responsibility of the establishments and their maintainers themselves.

— such as autism spectrum disorder, Asperger syndrome or attention deficit hyperactivity disorder — and heavily relying on medical practitioners) cannot be the responsibility of the establishments and their maintainers themselves. *A co-ordinated programme must be supported by an appropriate centralized information system, it cannot emerge from separate developments.* The programme could be run by regional (or possibly macro-regional) centres. This is the level of administration with the best chance of success in co-ordinating the professional activities of various establishments, running a central information system and monitoring professional standards and the use of financial resources.

Before regional centres can be set up, an efficient model of SEN funding needs to be developed. The costs of diagnostics and therapy can be established for each broad diagnostic category grouped according to professional criteria; participant-based subsidy rates should be adjusted to these costs and the use of funding should be monitored. Practical service provision will remain decentralized, which is essential for services to be flexible and maintain high standards. However, the current system, where the national diagnostics system is the outcome of locally concatenating a variety of methods as dictated by the lobby interests of different professional groups, is untenable both from a professional and from a financial point of view. To maintain high standards and cost-efficiency in equipping establishments with modern tools, maintaining the standardized values of norm-referenced tools, training staff to use diagnostic procedures and offering continuous professional development, there must be an independent, autonomous national institution responsible for these tasks. An independent *national specialist diagnostics centre* could be the solution to the problem of supplying diagnostic tools, offering high quality professional development opportunities[12] and providing quality assurance.

### ■ Regulating and monitoring the responsibilities of the state and local governments

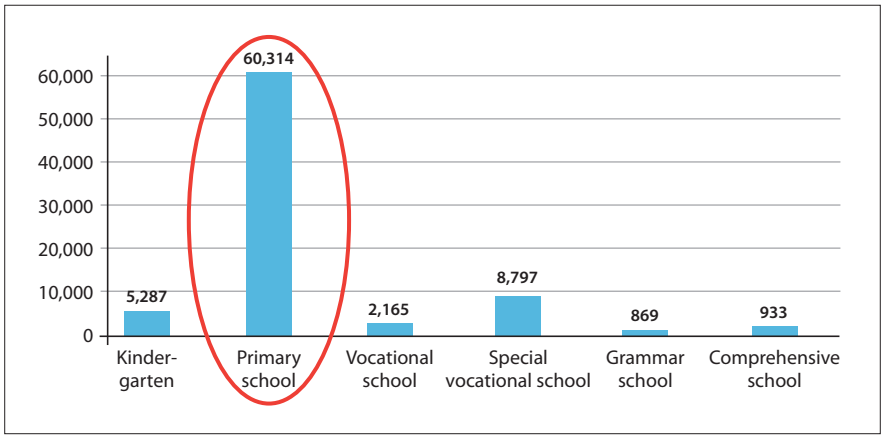
10. The use of resources transferred to local governments to fund services for SEN–*b* children sharing their classes with typically developing children cannot be monitored, which means that if the central budget is to allocate resources to cover the extra costs of remedial education, a special funding construction needs to be created to guarantee targeted use. In the current system, the subsidy chasing attitude of schools and maintainers has bloated the category of SEN–*b* to a size which is no longer fundable; but a simple cut in subsidy rates per pupil would drain resources from children in need of support. The SEN–*b* category encompasses children with unimpaired intelligence who have some kind of general or particular learning difficulty and need the support of special teachers, tools, information technology, etc. The costs of meeting the needs of

The subsidy chasing attitude of schools and maintainers has bloated the category of SEN-*b* to a size which is no longer fundable; but a simple cut in subsidy rates per pupil would drain resources from children in need of support.

[12] Some of the development courses available at present are of dubious professional quality and training staff may have average or below average knowledge and skills. A separate problem is that these advanced training programmes have substantial costs, especially considering the number of different courses needed to build a sound foundation of SEN expertise.

[FIGURE 6.4]
The distribution of SEN (based on the categories used before the amendment of 2007 to the Public Education Act) according to school type

[SOURCE] KŐPATAKI ET AL. (2006).




[NOTE] SNI–*a*: usually identifiable in the first year of primary school or even earlier; SNI–*b*: usually identifiable at a later stage only. 10 per cent: 60–80 thousand children in Years 1–8.

SEN–*b* pupils attending mainstream educational establishments between the ages of 6 and 18 and the costs of providing appropriate services for each subclass of SEN–*a* pupils attending special-purpose establishments are composed of the costs of wages and the costs of equipment. (Special-purpose establishments may be attended for the entire period of pupils' education or only during the initial stages prior to reintegration back into mainstream schooling, as is the case with blind children for instance, who first need to acquire adaptive techniques; see JANKÓ-BREZOVAY, 2007.)

Funding requirements are a function of the number of children in each SEN category, the real minimum costs of their education and the way the resources allocated for this purpose are made use of. National statistics typically indicate an equal number of children, while local (town-based, regional or county) figures show great variation even in terms of the previously utilized categories of SEN (see *Figure 6.4*). This is typically at most 10 per cent of all children in public education but there are national committees for assessing learning abilities and rehabilitation where a diagnosis of dyslexia, for instance, occurs over 30 per cent of the time. This is professionally unacceptable (see the boxed text on dyslexia for details). Without reliable diagnostic procedures, however, it is difficult to establish whether the number of children needing support with difficulties of this kind (dyslexia, dysgraphia, dyscalculia, general learning disorder) is over or underestimated, especially as regards the SEN–*b* category. That is, in addition to professional duties, the responsibilities of the state and those of local authorities should also be co-ordinated and the conditions and uses of funding as well as the procedures of financial inspection should be specified.

The present status of SEN suggests that the mechanisms underlying the service provision system do not work. The diagnostic categories which were intended to point to the appropriate type of education have turned into mere fund-raising statistical categories and the resources intended for SEN are used

A coherent system of compensatory education can only be delivered if the use of funds is monitored and any unauthorized use draws sanctions.

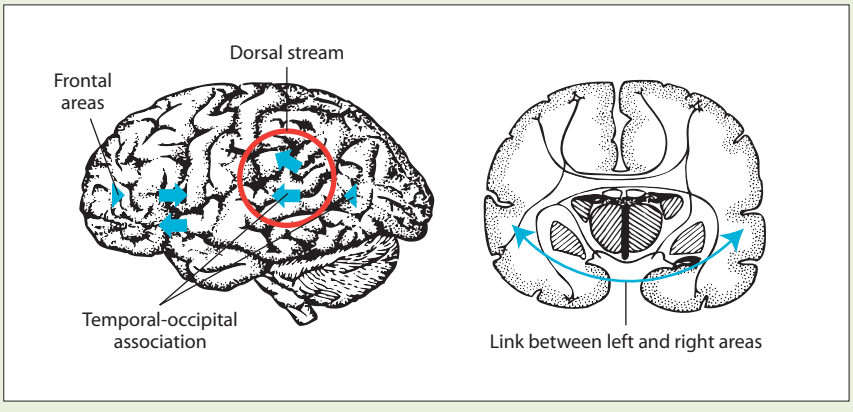
for unknown purposes (which may not be worthless but do not target the children's development). The problem cannot be solved by excluding certain groups from subsidization. A coherent system of compensatory education can only be delivered if there is a way to monitor the use of the funds allocated for this purpose and where any unauthorized use of the financial resources draws sanctions. However, the problem has to be faced, once again, that economic and legal tools cannot offer a satisfactory solution without a reliable diagnostic protocol and system and without high professional standards throughout the SEN services. This across-the-board problem of education is best illustrated through the issue of dyslexia and reading difficulties, where beliefs and false beliefs abound. This is discussed in the box *Reading disorders*.

The above analysis of the status of SEN in Hungary has shown that the programme is structured and layered in a complicated and hard-to-follow way. The service hierarchy is unsystematic and there being no standardized information system, the organization of the programme is impenetrable. These problems cannot be solved by legislative means alone. The Public Education Act, however, offers a relatively progressive framework (albeit with the shortcomings

## READING DISORDERS

Reading accomplishments significantly deviating from the average in a negative direction may be the result of several different causes, since meaningful reading is a highly complex cognitive achievement. Even the development of reading routines is the outcome of a highly complex developmental process. Namely, the two routes of reading, the co-ordinated functioning of the system that requires the development of a phonological system and a word recognition system for the decoding process rely on several subroutines of cognitive functions (speech perception, auditory processing, visual perception, mental dictionary, etc.) and on their development and maturation (see *Csépe*, 2006 for details). As can be seen in *Figure 6.5*, reading is a highly complex skill, which relies on newly emerging and re-organizing brain functions.

[FIGURE 6.5]
Brain functions



Skilled reading is linked to complex, re-organizing brain functions. Developmental anomalies in these functions show a strong correlation with dyslexic behaviour. Dyslexia can only be shown to have so-called "organic" origins if the child has severe and demonstrable injuries. Incidents occurring around birth (e.g., prematurity) are not in themselves a sufficient diagnostic condition for classifying the disorder as "having organic origins." The category of dyslexia encompassing various reading disorders shows a characteristic cognitive pattern, which can be distinguished from other types of reading difficulty through appropriate diagnostic procedures. A brief summary of typical features reveals the areas for complex specialist diagnosis and the areas for educational diagnostics.

THE DOMAIN OF READING DIFFICULTIES

Not dyslexia: distinct cognitive profile. Factors:
- Socio-economic status (SES)
- Socio-cultural characteristics
- Inadequate school
- Inadequate education
- Inappropriate method

DYSLEXIA
- Heterogeneous, subgroups of characteristic cognitive profiles
- Characteristic differences in brain functions
- Subgroup displaying multigenetic inheritance

The following questions therefore apply to SEN in general: How do we define organic and non-organic? Who should establish whether a condition has organic origins and how? Who should make the diagnosis and what tools are available for this task? Specifically, are modern, reliable, standardized norm-referenced tests available? Is the funding really used to support dyslexic children in the absence of adequate diagnostic methods and trackable use of resources? Does the subsidized service reach children really affected by dyslexia? Should they be educated at specialized institutions, that is, do we want to encourage segregation or integration? Or should we perhaps opt for a model where specialist institutions are responsible for diagnosis and compensatory education but the children also attend regular schools? What can be done about difficulties caused by a combination of *special educational needs* and *multiple social disadvantages*? Can intervention targeting difficulties with reading comprehension boost performance in the lowest section of the overall educational achievement distribution? Is it sensible to subsidize support for poor reading skills on a per-pupil basis if
- no reliable diagnostic procedures are available, i.e., "poor reading skills = dyslexia";
- the role of the school and the effects of teaching methods and approaches are not clear;
- the Hungarian school system is widely accepted together with the fact that it magnifies the effects of low socio-economic status;
- the results of the PISA programme of 2006 (Programme for International Students Assessment) are depreciated by professionals in comparison with international assessment programmes using different methodology, such as TIMSS (*Trends in International Mathematics and Science Study)*.

mentioned above). The tasks waiting to be completed are primarily of a professional nature (diagnostics, therapy, protocol, professional monitoring, etc.), or a question of organization (service levels, competence domains, institution networks, monitoring, etc.). It is these that should be considered in developing an adequate funding scheme. Finally, once an efficient programme has been designed, any conflicts with current laws and regulations can be investigated.

## ■ SUGGESTIONS

1. A medium-term strategy is needed to solve the problems of SEN services but the most important issues should be addressed as soon as possible. Our suggestions concern three areas: *a)* changes to institutions, *b)* professional solutions, and *c)* long-term recommendations and select tasks which are closely related to other domains of education discussed in this volume.

### Institutions

2. In the medium term, institutions involved in SEN diagnostics and educational and rehabilitative service provision should be organized into a region-level network structured according to a similar model; and, most importantly, the programme should operate as a coherent system. One of the pillars of the system should be a compulsory structure of standard, specialized and special diagnostic levels modelled on the hierarchical organization of the health service composed of a general, a specialist and a special level.

It should be investigated whether a unified system of SEN services is compatible with current education provision responsibilities and the funding obligations of local governments.

It should be investigated whether this type of unified system of SEN services is compatible with current education provision responsibilities and with the funding obligations of local governments. The task would be easier if there was a standardized method of specifying funding obligations at the local governmental level (for instance, local authorities could be required to spend a fixed proportion of their budgets on standard education services) and central sources were used to top up the funds to the level determined by the standard cost rate per pupil. The following measures are essential in implementing an education programme where integrated education is the default solution for a large section of the pupil population (see Groups 2.*a* and 2.*b* in *Figure 6.1*):

- enhancing the services aimed at improving the achievements of children with special educational needs,
- unequivocally determining the costs of services broken down to individual items,
- developing a transparent and trackable system of funds transfer.

The first step that must be taken is to assess the entire current construction of SEN services (human resources, tools, infrastructure, etc.) broken down to, and within, individual SEN categories (e.g., blind children, deaf children and children with mental retardation).

Service requirements should be itemized for, and within, each category in the protocols assigned to individual diagnostic categories and the average costs of services set out in the protocols should be estimated (the stipends to specialists, the wage supplements for teachers participating in integrated/inclusive education, the purchase or rental costs of special purpose equipment, infrastructure and other expenses, such as travel reimbursement for peripatetic

Service requirements should be itemized in the protocols assigned to individual diagnostic categories; average costs and the cost items the state can reasonably cover should be estimated.

specialists). This — broken down into age groups — should be the basis of calculating the total costs that the state can reasonably cover. (Some expensive equipment is only needed at the initial stages of education for blind children, for instance — JANKÓ-BREZOVAY, 2007.)

3. The higher rate per-capita funding allocated for services for children participating in integrated education should have improved focus (a given proportion of the funding should be transferred directly to the establishments providing rehabilitative services; see MIHALOVICS, 2007 for a similar proposal). Also, a rational procedure should be developed to estimate the expenses of peripatetic specialists taking travel distance and other factors into consideration. To improve the efficiency of SEN–*b* services, minimally a "mentor educator" but preferably all educators involved should be given specialist training.

Specialist training minimally for a "mentor educator" but preferably for all educators involved in an effort to improve the efficiency of SEN-*b* services.

4. To meet these objectives, it appears to be necessary to implement a system of monitoring standard and specialist services and develop standards of accountability and controllability. While practical tasks remain decentralized, quality assurance relying on professional and financial monitoring should be governed centrally. Following an assessment of overlaps of responsibilities and conflicts of competencies, the diagnostic and care provision services of various organizations (educational counselling service centres, specialist teacher services, the United Medical and Preventative Service, etc.) should be organized into a standardized and transparent system supported by appropriate information systems. An investigation must be undertaken into ways of setting up regional centres (EU-regions) which can be made responsible for quality assurance, monitoring professional activities, securing the conditions needed to acquire equipment and financial resources, ensuring that budget sources reach the end user and are used efficiently throughout SEN services. The need to support the work of regional centres and to develop, maintain and improve diagnostic tools justifies the formation of an independent national centre (a national centre for diagnostic services), which is responsible for introducing modern tools, standardizing procedures, maintaining the normative values referenced by the tests specified by the protocols and arranging advanced professional development opportunities.

Investigation needed into ways of setting up regional centres which can be made responsible for quality assurance, monitoring professional activities, securing the conditions needed to acquire equipment and financial resources, ensuring that budget sources reach the end user and are used efficiently. The formation of an independent national centre for diagnostic services is justified.

5. While keeping the decentralized structure of general service provision unchanged, there should be an examination into the way by which the special diagnostic and care provision activities of national committees for assessing learning abilities and rehabilitation could be made independent from the maintainer. It should be established whether these activities can be part of government administration, and personal, professional, infrastructural and financial conditions should be assessed. Three problems could be solved by incorporating the activities of national committees for assessing learning abilities and rehabilitation into government administration: *1.* independence from local

In what way could the special diagnostic and care provision activities of national committees for assessing learning abilities and rehabilitation be made independent from the maintainer – while keeping the decentralized structure of general service provision unchanged?

governments and educational establishments, which may be influenced by the financial consequences of diagnosis, *2.* the establishment of uniform requirements, and *3*. the enforcement of quality assurance.

### Professional solutions

The institution to undertake assessment and diagnostics pertaining to *standard services* is first of all the education advice centre. The tasks of specialist diagnostic establishments demand complex diagnostic tools. Within the specialist programme, SEN diagnosis must be the responsibility of professionals with specialized training.

6. The tasks, specialist skills and institutions involved in services for SEN children should be linked to other care provision services (health care, individual and family welfare, and, most importantly, child protection services). In this system, the institution to undertake assessment and diagnostics pertaining to *standard services* is first of all the education counselling centre. The availability of diagnostic tools must be improved and the work on legislation should be completed as soon as possible to allow the network to fulfil its function (see SZAKÁCS, 2007). One of the tasks of the standard service is to apply diagnostic procedures intended to screen children and refer those who only need a teacher's support back to their teachers after advising them as needed. Education advice centres would also be responsible for the education of SEN–*b* children but the necessary conditions must first be granted (reliable diagnostic tools, monitoring and protocols). The first phase has wide applicability considering that, as indicated by the statistics on education counselling centres, 20–25 per cent of children are involved. *Specialist establishments* constitute the second phase. Their tasks demand complex diagnostic tools, which are currently unavailable. Standardized protocols supported by a professional consensus and clearly delineated areas of competence should be defined. Ways of developing a modern SEN specialist programme with the participation of some of the educational counselling service centres and national committees for assessing learning abilities and rehabilitation should be investigated. Within the specialist programme, SEN diagnosis must be the responsibility of professionals with specialized training. At present there are several endowment supported institutions which are connected to the national health care programme and could fulfil this function. The capacity of these institutions to provide specialist diagnostic services (autism spectrum disorder, ADHD, etc.) should be analysed.

Only limited diagnosis can be made at any given level of the hierarchically structured system. A national consortium is needed for a modern diagnostics programme covering every step from screening to specialist diagnostic.

7. In the structured system of SEN services proposed here, the diagnosis made at any given level of the hierarchical structure of standard, specialist and special services would have restricted validity and special categories would pertain to specialist services. Whichever aspect of the current position of SEN services we look at, it becomes clear that a *national consortium* is needed to develop a modern and complex diagnostics programme covering every step from screening to specialist diagnostic. The consortium could take part in the work of developing a complex diagnostics system and a professionally trackable provision programme from the outset.

It is essential to modernize SEN diagnostics if we are to understand the causes underlying pupils' failures, especially as regards SEN-*b* cases.

8. It is essential to modernize SEN diagnostics if we are to understand the causes underlying pupils' failures, especially as regards SEN–*b* cases. Reading is an especially critical area, where problems of different origins coalesce. With the category of dyslexia becoming diluted, the manifold causes behind poor reading comprehension are left neglected. An expert analysis would be needed to shed light on the politically charged debate that alternately links reading difficulties to dyslexia, social disadvantages, teaching standards or else the quality of textbooks and methods. A *national reading panel* could be set up as proposed by the Round Table on Education and Children's Opportunities to help to find a solution to this problem.

### Long-term plans and high-priority tasks

9. The system of SEN services is difficult to follow both for the professionals involved and for the users (children, parents). Professional considerations play a less significant role in shaping the programme than do the administrative considerations of local governments (see, for instance, the authority of notaries in SEN issues). An integrated information system should therefore be constructed to document and keep track of assessment results, diagnoses and the actions and education activities aimed at supporting each child. This information system would be a continuation of the health visitor database supporting the task of early childhood care (see Chapter 1). The child-tracking information system would record the results of condition assessment, development assessment, screening, diagnosis and service indicators as well as variables pertaining to education, therapy and rehabilitation (content, duration, changes, etc.), which would be complemented by professional monitoring. Issues of data privacy and the professional and other (such as financial) conditions of the system should, of course, be given thorough and careful analysis.

An integrated information system should be constructed to document and keep track of assessment results, diagnoses and the actions and education activities aimed at supporting each child.

10. The label of "atypical development" should be used in its appropriate sense (the current professional and financial regulations only focus on disorders) and the legislation should spell out that the programme is intended both for children developing faster than the general population and those developing more slowly. This would allow a complementary education programme to be developed and subsidized for gifted children. The present programme related to gifted education should be enhanced, activities should be offered systematically and additional costs should be treated in line with the treatment of special educational needs in most OECD countries.

The programme is intended both for children developing faster than usual and those developing more slowly.

11. A decision model applying to the entire service provision programme should be developed — and made compulsory following professional approval — and a co-ordinated service provision protocol should be drawn up and detailed with regional differences (economic development, settlement structure, ethnic

composition) and family background (multiple disadvantages, profound poverty, etc.) taken into consideration. The complex care (educational, health and social) of special educational needs and other, atypically developing children (such as those with multiple disadvantages) requires co-ordinated regional activities, support for the work of local governments, adequate professional conditions and genuine quality assurance. There must be an investigation as to how centralized protocols, a system of monitoring and the necessary information systems can be defined while the current heavily decentralized schemes are kept. Once the recommended systems have been developed, regulations on the responsibilities of various professions involved in SEN service provision should be reviewed. The sections of local government laws applying to education funding may need to be revised in order to eliminate current funding anomalies.

There must be an investigation as to how centralized protocols, monitoring and information systems can be defined while the current heavily decentralized schemes are kept. The section of local government laws applying to education funding many need to be revised in order to eliminate current funding anomalies.

12. It is important to review professional responsibilities across all service areas and all the professions involved. Further, professional duties should be modernized (children with mental retardation) or refined (children with physical disabilities, blind and partially sighted children, deaf and partially hearing children, children suffering from pervasive developmental disorders, including autism spectrum disorder). These tasks also demand a modern child-tracking information system that observes current laws (such as data privacy).

## ■ LINKS WITH OTHER PROGRAMMES

For the programme to be successful, SEN must be a separate part of every major area of public education. At present, the subject of SEN only appears in selected modules of *teacher training,* and in a highly specialized context (teaching in inclusive education). The teacher training curriculum should make integration the standard model and should include SEN education throughout the training programme and especially in pedagogy/psychology modules, which require interdisciplinary collaboration. A comprehensive SEN programme should make sure that specific services are linked to service provision programmes of *child poverty, opportunities for children, child health* and *child protection*. The issue of SEN is not limited to basic education; it must be addressed across the entire spectrum of training and in the world of employment. For the services for children with special educational needs to be successful, they need to be incorporated into *lifelong learning* schemes as well.

## ■ TIMING

The implementation of the *diagnostic protocol system* needs to be funded by central or ministry-level sources and it will take at least five or six years to establish. For the task of restructuring the activities of different establishments, three years appears to be a reasonable time scale, including the preparatory tasks of reviewing the responsibilities of local governments as maintainers and drafting the relevant regulations. The development of the professional monitoring system, centralized functions and the institutional child-tracking information system is estimated to be a medium-term plan. Current regulations may need to be supplemented to allow the full spectrum of *atypical development* (including developmental delay as well as accelerated development and giftedness) to be taken into consideration and an appropriate funding model to be designed. The most pressing questions of SEN services are the unavailability of a modern and complex diagnostic programme, on the basis of which the most appropriate educational tools could be selected, the absence of effects analyses evaluating those tools, and the unsolved issue of professional monitoring. A special team should be set up to find a solution to these problems and to design a funding model for the modernized system. These steps are needed to deliver the medium-term plan concerning the full spectrum of SEN (disorder and giftedness). The most urgent tasks are to develop a national diagnostic programme supported by compulsory protocols, to construct a system of centralized professional monitoring and to review and reorganize current, untraceable funding routes as needed.

## ■ GAINS AND COSTS

In countries where children with special educational needs receive support and special attention throughout the system, the children's educational attainments substantially exceed the average level. (This holds both for the Netherlands, where diagnoses are made, and for Finland, where no diagnoses are made; see the PISA survey of 2006.) In countries where developmental deviations receive the attention appropriate to their complexity and depth, the odds of a pupil dropping out of school are lower, as an accepting attitude towards being different is acquired — partly thanks to communities where typically and atypically developing children live together — as part of socialisation at pre-school level and during compulsory schooling as well.

In countries where special educational needs and simply poor achievement are distinguished at the level of diagnostics, there are *no regional or ethnic differences* in diagnostic categories. An investigation into the causes of poor school performance would benefit the entire system of public education: PISA 2006 reveals a strong relationship between efforts of these kind and improved

education outcomes (e.g., in Germany and Poland). In a transparent system which relies on clearly defined categories, tracks service provision provided to individual children, and can be followed by professionals, there is less room for anomalies, and children's rights to special education and rehabilitative instruction are less likely to be disregarded.

## ■ INTERESTS, CONFLICTS

The primary beneficiaries of a well-organized SEN programme will be those whose poor school performance does not belong in the domain of SEN but are misclassified as having special educational needs as a result of current obscure diagnostic practices. Children correctly classed with SEN but not receiving appropriate support will also benefit, similarly to parents who currently need to use their own resources to help their children. The changes will further benefit private endowment institutions which undertake significant professional responsibilities and offer special services but are excluded from most government funding schemes or struggle with permanent financial problems for other reasons. The entire public education system will benefit if it can be clearly established whether a child's achievement problems stem from the child's abilities or from social factors (social disadvantages, profound poverty, the parents' low socio-cultural status, etc.) and what share of the responsibility is borne by a general inefficiency of school education, inadequate education methods or textbooks.

The proposed changes conflict with the interests of those who use subsidies for other purposes — possibly out of necessity but without consequences, nevertheless — be it local authorities, schools or other actors; all those representatives of public education for whom a revision of disability issues and related regulations or the introduction of more rigorous competence requirements may pose problems; and all those who may be negatively affected, perhaps to the point of existential insecurity, by the introduction of a strict programme of quality assurance in diagnostic and education services. The changes may further be a source of conflict for those who exploit the current anomalies of the services, development of methods or funding, those who gain benefits from the current decentralized system lacking professional control, and those individuals and institutions that are successful in the competition for funding and do relatively well within the current system. Integrated education for children with special educational needs also harms typically developing children and their parents if the necessary conditions for successful integration fail to be created and thus the standards of their education decline.

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# 7 The assessment and evaluation of educational institutions, school accountability

[Gábor Kertesi]

By the turn of the millennium almost every economically developed country understood the importance of measuring the performance of public education with comparable indicators, collected at reasonable costs. These indicators have to be linked to the activities of individuals making up the institutions and used to develop incentive systems that provide motivation for teachers, school principals and school providers to improve their performance. The efficient operation of public education institutions is contingent on having access to appropriate performance indicators and on linking this body of information to a well functioning evaluation and incentive system.

This paper is organised as follows. First, theoretical issues arising in connection with planning school accountability, assessment and evaluation systems are discussed. Next, the current Hungarian school evaluation system is described and the problems inherent in the system are identified. Finally, a plan is proposed for improving the system.

## ■ THEORETICAL FRAMEWORK

*The problem: the importance of output based assessment.* Public education is a complex system with an annual budget of about 500–600 billion Hungarian forints[1], most of which comes from central and local revenues and from private spending. A large number of social actors play a role in public education: 1.8 million students and their families, about 5000 educational institutions, 160 thousand teachers, and several thousand school providers (local governments, local government associations, foundations and churches). The public education "industry" can be described as a mix of several types of inputs and outputs. In the most general sense, the output of public education is the students' knowledge and skills in the broadest sense of the word, which they need in order to become successful members of society and to contribute to the development

[1] One Euro was equal to around 250 forints at the time of writing (May 2008).

of the country. The traditional view contends that the effectiveness of public education can be adequately assessed in terms of the resources used in public education: the number of teachers, the number of hours worked, the amount of grants per student, the buildings, classrooms, textbooks and computers used by education services, the number of teachers completing in-service training, the available curricula, etc. This view, however, relies on a false assumption, namely that "if a country spends a lot (or more than in the past) on public education, the system is guaranteed to function successfully (or more successfully than in the past)." Let us quote one of the main observations of the McKinsey report: "In fact, almost every country in the OECD substantially increased its spending on education over the same period, in addition to launching multiple initiatives to spend this money more effectively. Yet very few of the school systems in the OECD achieved significant improvements in performance. One study based on the results of national and international assessments showed that in many school systems performance had either flat-lined or deteriorated" (BARBER & MOURSHED, 2007, p. 10).

Educational inputs are not the right measure of educational effectiveness. It is not only the quantity of resources that matters but also their composition and the way they are used.

Educational inputs are not the right measure of educational effectiveness. It is not only the quantity of resources that matters but also their composition and the way they are used. Educational resources can also be wasted. The *efficiency approach* is different: we want to understand *the relationship between educational inputs and outputs.* The education system functions well if it functions effectively. We want to provide *feedback* for every stakeholder — parents and students, school providers, teachers and principals, as well as taxpayers — in order to help them in *identifying problems in the functioning of the educational system and improving performance.* What do we need to take into account if we want to design a well performing school assessment programme? There is a long list of problems that we need to tackle. First of all, appropriate indicators have to be found.

*What kind of indicators shall we use?* At first sight several inexpensive indicators are available: end of semester and year grades, exam results, grade retention, school continuation rates, etc. These data are, however, inadequate for our purposes as they do not allow inter-institutional comparisons. Better measures can be obtained from the labour market: returns to knowledge and skills acquired at a given school, i.e., employment rates, career advancement, wage and wage increase. This method, however, faces several practical obstacles: it would be rather costly to collect these kinds of data; there is no simple way of linking this information to the various levels of education (even less so to individual institutions). Even if this problem could be overcome, the results could only reach the educational institution involved after a considerable delay. Also this information cannot be directly used when plans for the improvement of educational practice are to be designed.

Another choice is the use of standardised tests which are designed to assess the basic components of individual competencies. This appears to be the most

promising method. The most appropriate tests are those suitable for assessing general skills that underlie overall learning abilities (i.e., the ability to acquire new knowledge of any kind). Examples include tests assessing reading literacy (the ability to understand texts, which is the most basic prerequisite for all types of learning), mathematical literacy and logical reasoning.

A standardised testing programme has *several advantages*: *a)* it allows inter-institutional comparison, *b)* the tests can be linked to universal benchmarks (e.g., at age *x* or in grade *y* students are expected to attain at least level *z*), *c)* the standardised test results can provide information which constitutes meaningful feedback for all stakeholders of the education system (schools, parents and school providers), i.e., information that helps them decide what is to be done if more than a pre-specified proportion of students fail to attain level *z* by the age of *x* or in grade *y* in a given institution. The information directly evaluates the institution, the proper locus of feedback and correction.

The use of standards based tests is also *not without problems*. There is enormous variation across individuals, which has a large impact on test results. The result of the assessment is therefore uninterpretable unless individual variation is controlled for. Individual level assessment is subject to a very large error term (the results are influenced by random factors). It is therefore desirable to aggregate the test results at school level. The aggregation of individual level results helps to reduce the measurement error but the volatility of aggregate data can have a significant distorting effect on the cross-sectional and longitudinal comparison of groups (especially for schools, school sites and classes with small student rolls[2]), where student composition may be highly instable at any one moment. Absences and other random effects may have significant consequences, and even relatively minor temporal changes (a student leaving or a new student enrolling) can lead to major temporal fluctuations in estimation results. These problems must be countered by a well-designed system.

A general theoretical framework that appears to be appropriate for the purpose is the human capital model, which takes into account the factors that have contributed to the attainment of students' skills.

*How to measure the school's contribution to student achievement?* Above all, we would like to highlight the importance of a theoretical framework. A general theoretical framework that appears to be appropriate for the purpose is the *human capital model*, which takes into account the factors that have contributed to the attainment of students' skills (measured by the test scores).

$S_t$ denotes individual skill level (test score) attained in year *t* and the symbol *I* stands for the set of activities — involving the family, the broader environment or the educational institution — that may increase a student's skills either as a purposeful "investment" or as a "by-product" of some other activity. Let us further mark the time between birth and year *t* with the set of indices 0, 1, 2, ..., *t* (measured in number of years for simplicity). The problem then is described by the following simple model:

[2] Most poorly performing institutions belong to this category.

$$S_t = f_t(S_{t-1}, I_t),\ \partial f_t/\partial S_{t-1} > 0 \text{ and } f_t/\partial I_t > 0$$

The basic tenet of the model is that the level of skills attained in any given period is a positive function of the skill enhancing activities of that period and the skill level attained in the previous period. The model assumes that a higher initial skill level constitutes an advantage in acquiring new knowledge and that skill enhancing activities also have a positive effect on the performance measured in year *t*.

As a consequence of the recursive nature of the problem, the level of skills (the test scores) attained in period *t* is the result of the skill level given at birth and all the past and present skill enhancing activities (in the family, neighbourhood or school) that occurred between birth and period *t*:

$$S_t = f_t(S_{t-1}, I_t) = f_t[f_{t-1}(S_{t-2}, I_{t-1}), I_t] = F(S_0, I_1, I_2, \ldots I_{t-1}, I_t)$$

To achieve an estimation of the school's contribution to student competencies based on test results, we need to build a statistical model that is able to control for the effects of all past school and non-school inputs and all current non-school inputs significantly which may affect the student's performance measured in a given period.

Therefore, to achieve an estimation of the school's contribution to student competencies based on test results, we need to build a statistical model that is able to control for the effects of all *past school and non-school inputs*[3] and all *current non-school inputs* which may affect the student's performance measured in a given period. If these effects are not *controlled for*, the results will be biased since part of the effects will be ascribed erroneously to the school, while important school related effects may be ascribed erroneously to other factors.

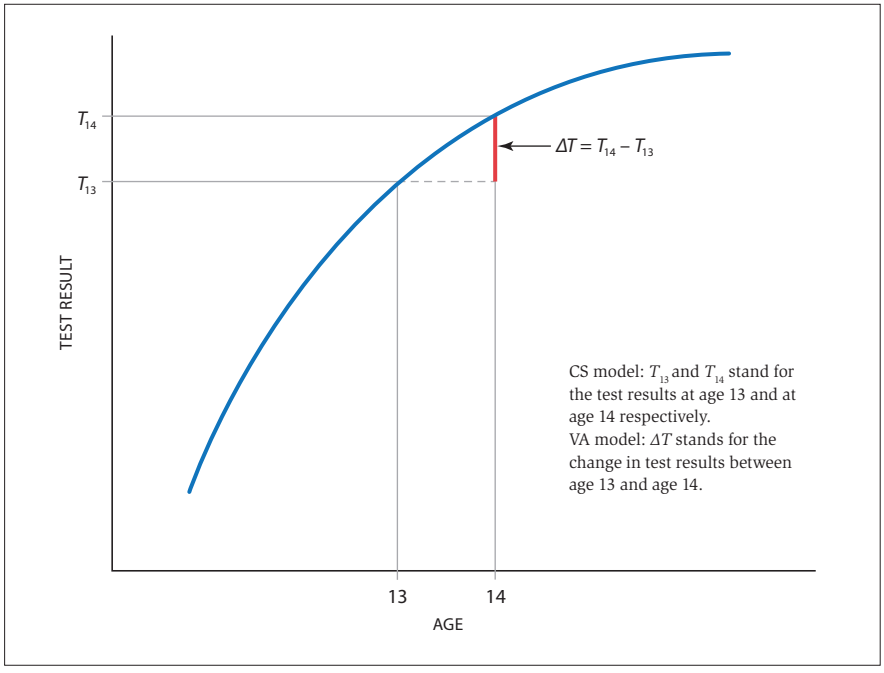
For simplicity, let us assume that the school's contribution is measured by some test results when the student is 14 years of age.

*There are two alternative measurement strategies:* we can use a cross-sectional (CS) model, which only makes use of information representing current effects, or we can use a value added (VA) model, which makes use of information from at least two consecutive cross-sectional measurements linked at an individual level. The CS and the VA methods rely on different outcome variables: the CS model — in our example — takes the test results attained at age 14 ($T_{14}$), while the VA model takes the *difference* between the results achieved at age 13 and 14 ($\Delta T$). See *Figure 7.1*.

*The cross-sectional (CS) model.* This model takes the test results attained at age 14 as its dependent variable and only allows the effects of *current inputs* to be controlled for. To keep the discussion simple, disregard the difficulty that even current educational inputs cannot be measured directly but only by proxies such as parental educational attainment, employment status, the family's resources, cultural goods (the number of books) and similar data. *What kind of bias do we face when the school's contribution to the student's achievement is measured within this framework?*

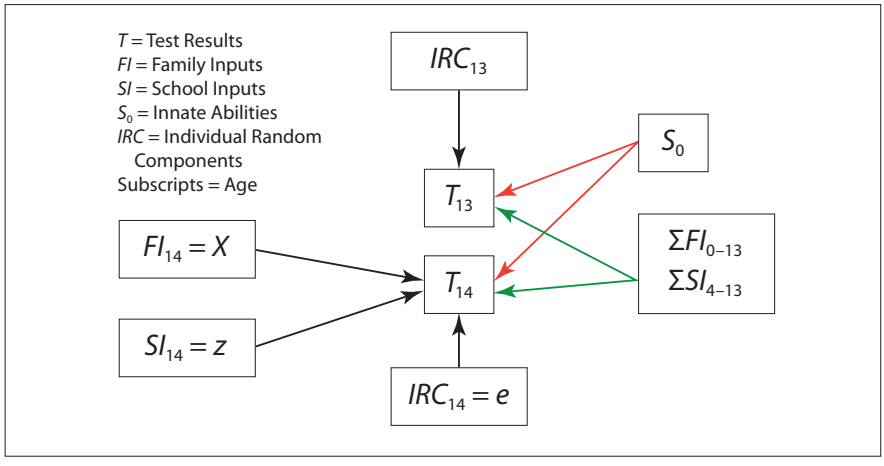
[3] As well as the effects of innate abilities.

[FIGURE 7.1]
Dependent variables of the cross-sectional (CS) and value added (VA) models




In *Figure 7.2* the inputs affecting the test results measuring the skills of a 14 year old are classified into four groups along two dimensions: current and past, family and school inputs. Current and past family inputs are denoted by $FI_{14}$ and $FI_{0-13}$, current and past school inputs are denoted by $SI_{14}$ and $SI_{4-13}$. Two further factors are included: the student's innate abilities ($S_0$) and individual random components affecting the test results ($IRC_{14}$).

[FIGURE 7.2]
The cross-sectional (CS) model



If the model were perfect, all of the factors listed above would be measurable. If this was the case, the school's contribution could be estimated by the following statistical model:

$$T_{ij} = X_{ij}b + \{\text{the effects of past family and school inputs and of innate abilities } (S_0)\} + \varepsilon_{ij,}$$

where $i$ indicates a given student in a given school $j$, $X$ stands for the proxies of the current family inputs, and $\varepsilon_{ij}$ is the residual of this well specified estimate. Individual residuals can be decomposed into the school mean residual ($z_j$) and the individual deviations ($e_{ij}$) from that mean:

$$\varepsilon_{ij} = z_j + e_{ij}.$$

In the CS framework the school mean of individual residuals represents the school's contribution to the performance of students. Using the residual is the only viable solution to the problem of measuring the school's contribution. The more relevant the non current school input proxies included in the model are, the better can be our estimate. The problem is, however, that the cross-sectional model does not permit some important effects to be controlled for while empirical evidence[4] suggests that omitting these effects can significantly bias our estimate.[5]

*The value added (VA) model.* As an alternative, the value added model, offers a satisfactory — albeit not perfect — solution to the problem of omitted variable bias. To understand the logic of this measurement strategy let us return for a moment to the diagram of the CS model (*Figure 7.2*), where not only the test results at age 14, but the test results measured one year earlier, at age 13 are also displayed. Given certain conditions, it can be shown that if *panel data* of test results of consecutive years[6] are available, then the effects of the practically unmeasurable innate abilities[7] and of the difficult-to-measure past inputs can be eliminated (see *Figure 7.3*).

Two conditions must be met. It must be assumed that *(i)* innate abilities and past inputs are represented in linear form in the model and *(ii)* the parameters of *all* past effects from birth to the age of 13 (including innate abilities) in the

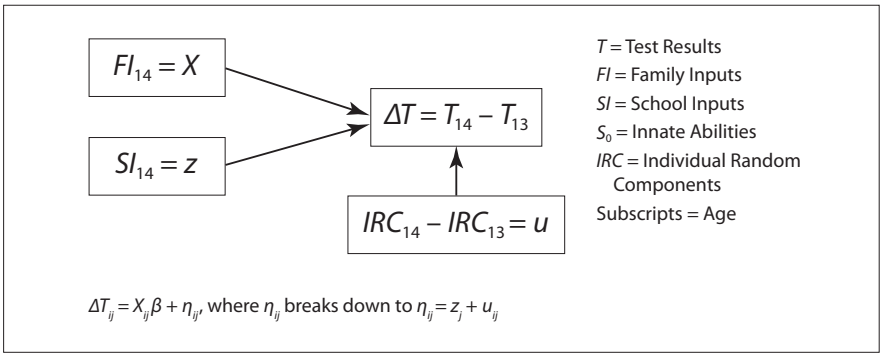
[4] See for instance HART & RISLEY (1995), LEE & BURKAM (2002), CUNHA, HECKMAN, LOCHNER & MASTEROV (2005).

[5] The bias may be mitigated (but not eliminated) by incorporating data on the student's family and schooling history in the CS model. This solution was used, for instance, by the Hungarian National Assessment of Basic Competencies programme in 2006.

[6] Every two consecutive years in Hungary as our assessment programmes cover students in grades 4, 6, 8 and 10.

[7] The only means of obtaining appropriate data would be by conducting very carefully planned long-term experimental panel surveys starting at birth.

[FIGURE 7.3]
The value added (VA) model




model for age 13 are equal to the parameters of similar effects in the model for age 14.[8] If these conditions are met, the effects of the effectively unmeasurable innate abilities and those of the difficult-to-measure past inputs can be eliminated by subtracting the equation explaining the test results at age 13 from the equation explaining the test results at age 14.

In the VA model, the school's contribution is once again estimated from the residual by taking the school mean of individual residuals ($z_j$) similarly to the method discussed in connection with the CS model, but the VA model allows a more reliable estimate since the effects of innate abilities and past inputs on the test results have been controlled for.[9]

*Further theoretical and statistical challenges.* There are three major groups of problems that must be faced: *a)* Since most of the theoretical variables (the "inputs") capturing the mechanisms of the theoretical model underlying the statistical model do not lend themselves to direct measurement, very careful consideration must be given to the choice of *measurable proxy* back-

[8] There may of course be objections to this latter assumption (see TODD & WOLPIN, 2003). The solution is not perfect but it is the best available.

[9] When the proposal was discussed by the Round Table, two arguments were raised against the VA model: *1.* that only those students can be included in this model who took the tests in both years (thus the size of the sample is likely to be reduced); and *2.* that the difference of two test results with a large random error is subject to an even greater random error (the errors add up). The answer to the first problem is that the assessment programme should be comprehensive in each year (as it is in grades 6, 8 and 10 as of May 2008) and the effects of mobility between institutions can be statistically adjusted with the help of the national student identification numbers. The problem of larger individual errors is a valid objection. It can be mitigated by using the school or site *averages* of individual "added values" and — as proposed here — by using *averages of consecutive years school averages* for the evaluation of a school's achievements. The question is, of course, whether it is the VA or the CS model that comes out as the winner when all the advantages and disadvantages of the two models have been taken into consideration. I believe that once these advantages and disadvantages have been weighed, the balance will unequivocally tip in favour of the VA model.

Since the school's contribution to student achievements can only be identified from the residual, no evidence can be obtained on the causes explaining why a given school's contribution to its students' individual achievements is found to be great or small. The mechanisms producing the effects must be explored in order to a deeper understanding of a school's contribution.

ground variables. *b)* Since the school's contribution to student achievements can only be identified from the residual, no evidence can be obtained on the causes explaining *why* a given school's contribution to its students' individual achievements is found to be great or small. The mechanisms producing the effects must therefore be explored in order to have a deeper understanding of a school's contribution. *c)* The residual based estimation of school contribution is highly sensitive to problems of sample size. The volatility of results caused by problems of sample size — especially for institutions having small student rolls[10] — concerns the *core* of accountability programmes. Let us discuss these problems one by one.

*a)* The choice of background variables is therefore crucial for the accuracy of the model whether it be a cross-sectional or a value added model. The relationships between the test scores and the background variables must be continuously analysed. Research and analysis are an indispensable part of the assessment and evaluation programme. No evaluation system of high standards can be delivered without this knowledge.

The identification of the mechanisms underlying good and poor school performance is one of the most important research tasks of the assessment, evaluation and accountability programme. It is essential to collect several relevant background information of schools, sites and classes in an effort to allow the heterogeneous causes underlying good and poor school performance to be analysed.

*b)* The analysis of school level residual effects[11] — the identification of the mechanisms underlying good and poor school performance — is one of the most important research tasks of the assessment, evaluation and accountability programme. It is essential, therefore, to collect several relevant background information of schools, sites and classes[12] in an effort to allow the heterogeneous causes underlying good and poor school performance to be analysed. It is far from immaterial, for instance, whether the good or poor school performance as measured by the residual stems from a shortage of certain resources or from an inadequacy in teaching practices or from the student composition. It matters because different causes call for different remedies.

*c)* The problems of sample size and the potential volatility of the results give rise to one of the most sensitive concerns with respect to the assessment of school contributions. The problem primarily concerns the assessment of the "performance" of institutions having small student rolls. *Figure 7.4* explicates the issue.

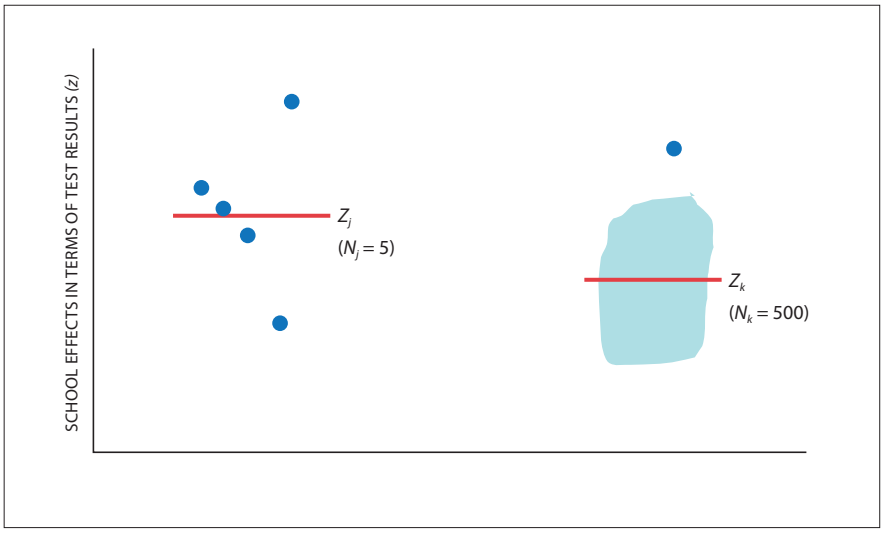
Two schools are compared. The figure displays the individual level residual effects — which are represented by individual dots and the gridded patch — and the school averages of the individual residuals ($z_j$ and $z_k$). The latter val-

[10] Which incidentally appear to be the most prone to poor performance.

[11] We have no way of knowing what these are, we can only find out — and only within the framework of a well-specified model — what they are *not*. The better the model's specifications (the more known *non-school* factors we can control for), the more confident we can be that the school level average of individual residuals actually reflects the performance of the school.

[12] The collection of background details must be guided by theoretical relationships and thorough familiarity with available local and international assessment results.

[FIGURE 7.4]
The interpretation of school fixed effects and the stability of results




ues represent the "schools' performance." School *j* is very small (5 students) while School *k* is fairly large (500 students). What happens if a student who can display outstandingly good or bad performance does not take the test or misses one of the two consecutive tests? It is clear that the "average performance" of the small school is far more sensitive to even minor changes in the student composition than the larger institution. As a result, the "performance" measurement of small institutions is *highly unstable at any given point in time* and highly susceptible to *temporal fluctuations* in assessment results over longer periods. In other words small institutions are more likely to produce striking "improvement" or "deterioration," which may simply be a statistical artefact.

Sample size may give rise to a number of problems having a significant distorting effect on the assessment of an institution. *1.* The results of institutions with small student rolls are more sensitive to *random factors.*[13] *2.* The results of institutions with small student rolls may be more heavily biased should the *test results* be directly[14] or indirectly[15] *manipulated* in the school's favour. *3.* The smaller the institution, the more susceptible its assessment will be to *inter-institutional student mobility.* Given a small population of students, the temporal fluctuation of test scores may display a substantial "average improvement" due to the departure of a relatively low-performing student or the

[13] A barking dog distracts the students while they are working on the test. Student X is having a bad day or Student Y happens to have a lucky day, etc. — there is an unlimited number of possibilities.
[14] Students may receive help with the test from their teachers, for instance.
[15] Absences may be manipulated: students expected to produce poor results may be sent home. These students are more likely to be "off sick" on test days.

arrival of a relatively high-performing student and vice versa. Unfavourable changes to the student composition may similarly play a role in a slump in average school results. The smaller the student roll, the greater the fluctuation effected by changes of this type. *4.* Sample size may also pose problems in institutions having larger student rolls if the assessment of the institution's performance refers to *subgroup-specific standards*. If, for instance — as in the case of the school accountability programme in the United States — in addition to overall standards, the regulations specify standards applying to individual social, racial or ethnic groups in an effort to prevent institutions from meeting the required targets while neglecting the academic progress of disadvantaged minorities. These commendable considerations may, however, give rise to problems of sample size, which must be overcome just as in the case of small institutions.

We shall return to these problems later but let us now have a look at the uses of the school-level information obtained from the assessment and evaluation programme. What is the use of an indicator of "school performance"? This question leads us to the central problem of school accountability systems.

*What sort of incentive system should be used?* Let us assume that the assessment and evaluation system is well designed. Assessment methods have been thoroughly tested and have proved to be valid. Standards are clear and meaningful. We know what we expect of students in any given year of schooling. We also know that some of the institutions will probably fail to meet the standards. The question is, to what extent should the information provided by the assessment system be used to motivate the actors of the education system (schools, local governments) and to keep all stakeholders (families, students, taxpayers) informed? Two major classes of accountability systems have emerged worldwide. In one type the use of institution-level information gained from the assessment and evaluation programme is *strictly limited* to the provision of information for all involved and the general public *(soft accountability)*. In the other type of accountability system the results are associated with direct consequences or "high stakes": rewards are given and sanctions are imposed *(strict accountability)*.

Within the two classes, accountability systems display considerable variation in terms of the depth and breadth of information disclosure and the significance and type of rewards and sanctions. Among the sanctions imposed on persistently low-performing schools, one widely favoured intervention measure is the introduction of school choice for the students enrolled in the low-performing school in an education system where students are otherwise assigned to schools by districts.[16] (The provider of the low-performing school is required to bear the costs.)

[16] In the United States, for instance, the education system does not allow school choice by default.

Given that free school choice is a general feature of the Hungarian education system, our school accountability programme carries the mark of a strict accountability system by default even if no other rewards or sanctions are pledged.

This is highly relevant to our discussion because given that free school choice is a general feature of the Hungarian education system, our school accountability programme carries the mark of a strict accountability system by default even if no other rewards or sanctions are pledged.[17] Any positive evaluation of a school's contribution to student performance made public acts as an encouragement for families to opt for that school while any negative evaluation made public may deter families from sending their children to that school. These decisions bring about a direct gain or a direct loss of revenues for the school. *Whatever type of assessment and evaluation system is implemented in Hungary, it will necessarily have significant consequences because of the general availability of school choice.*

We do not yet have any experiences of the consequences of operating such a system. It is an important empirical research task to analyse schools' responses and refine the incentive system based on the results. The typical problems characterising school accountability systems are nevertheless well known from the international literature and the practical experiences of other countries, and we also have a reasonable idea of measures that can amend or at least alleviate these problems. The next section reviews these experiences and we shall also return to the problem of statistical validity.

*What can be done about the problems typically characterising accountability systems?* Four characteristic dilemmas will be discussed.

*a)* The complex nature of pedagogical objectives is at odds with the narrow focus inherent in assessment and evaluation systems relying on a few performance indicators (test results). The assessment system encourages schools to focus their activities on the chosen performance indicators while neglecting other educational objectives *(tunnel vision)*. A further negative consequence may be a practice of *teaching to the test* — a skewed teaching practice where students are mechanically trained to solve specific test problems at the expense of general skills development.

*b)* In genuinely problematic cases — such as small schools — the results are unreliable because of the statistical problem of *sample size*.

*c)* Schools may *manipulate test results* to their advantage.

*d)* As a result of the sensitivity of the method to sample size, institutions of different sizes have widely differing statistical odds of showing improvement or decline relative to a given performance baseline. That is, if educational institutions are evaluated in terms of a *standardised set of benchmarks*, *small schools* are more likely than large schools to be subject to rewards or sanctions, which is clearly inconsistent with equitability. What can be done about these problems?

[17] Other serious consequences are also planned to be included in the Hungarian system. See paragraph 99 of the Public Education Act and the Ministry of Education Act 3/2002 (II.15.) on the public education quality assurance and quality enhancement programme, which is currently under review.

If – in the hope of improving average test results – schools choose to train their students for the appropriate use of basic skills, teaching to the test no longer serves some futile purpose but directly contributes to the attainment of the required educational objective.

*a) The problem of complex pedagogical objectives* versus *performance indicator centred education (tunnel vision, teaching to the test)*. We propose the following countermeasures. *1.* The questions assessing students' achievements should focus on basic skills — such as meaningful reading — or higher order skills rather than on procedural skills relying on rote learning. If — in the hope of improving average test results — schools choose to train their students for the appropriate use of basic skills (for instance, to use reading skills for text interpretation), this type of teaching to the test no longer serves some futile purpose but directly contributes to the attainment of the required educational objective (the development of meaningful reading skills). *2.* The student and school assessment and evaluation programme should be gradually expanded to cover all major areas of competence. Assessments should be gradually rolled out to hitherto neglected competencies (scientific literacy, social skills, etc.). The present state of the system of education assessment must not be viewed as an invariable programme: major areas of competency should be given a balanced representation (the dependent variable should be seen as a vectorial one).

*b) Small sample size can make the estimates on small schools unreliable*. We propose the following countermeasures. *1.* The assessment programme must include all students. *2.* The evaluation should be based on individual panel data (the VA model). Any distortions caused by students' leaving or new students enrolling can thus be controlled for by statistical methods. *3.* School evaluations should be based on averages of average school results of consecutive years.

*c) Test results may be manipulated by the school.* Suggested countermeasures: A good solution to the problem is using individual panel data (the VA model) since *(i)* if panel data are available the bias due to purposeful absences can be measured by statistical methods and *(ii)* in an evaluation programme relying on value-added estimates (panel data) it is unproductive to boost school results by test manipulation since the results achieved in any given year are the base values for the following year and *artificially boosted base values reduce the odds of improved performance in the following year* (the ratchet effect[18]).

*d) It is unfair to expect equal improvement of small and large institutions* (or to impose equal penalties for a similar decline in their performance). Suggested countermeasure: standards should be adjusted to institution size. Large institutions should be rewarded for even relatively small-scale improvements.

[18] The ratchet effect: the phenomenon that performance expectations tend to be raised in an incentive system following the attainment of a markedly high achievement. This has the effect of penalising high achievement since further improvement in performance becomes more difficult to achieve and thus rewards become less accessible. See for instance, MILGROM & ROBERTS (1992).

The problem must be locally analysed and its causes must be revealed.

*What should happen with low-performing schools?* This is one of the core problems of school accountability systems. The first question to be settled is what we can expect from the disclosure of the assessment results of low-performing schools. The primary aim is to encourage *a local analysis of the problem in search of the causes*. Being able to localise poor performance is not at all equivalent to knowing how to handle it. Failure may be the result of several different causes. What we want to achieve by making the assessment results known to those involved is to encourage them to investigate the causes behind their failure and find the appropriate solution. An effective assessment and evaluation system is intended to offer an opportunity in this sense for the renewal of schools. To quote the aphorism by *Thomas C. Schelling,* "The problem with most incentive structures is *not* getting people to do the right thing. It's getting people to figure out what the right thing is to do." (Cited by ELMORE, 2004 p. 236)

"The problem with most incentive structures is *not* getting people to do the right thing. It's getting people to figure out what the right thing is to do."

Schools must adopt a culture of evaluating assessment results and they may need outside expert assistance with this task.

The core objective of a public education assessment and evaluation system is to transform schools into a problem solving organisation continuously reflecting on the outcomes of its own activities. To achieve this aim, schools must adopt a culture of evaluating assessment results and they may need outside expert assistance with this task.

There are several prerequisites to the task of identifying the causes of underperformance.

*a)* It is essential that the school have a teacher who is equipped to organise the work of analysing the results, that is, a teacher who possesses the knowledge and skills needed for the appropriate analysis and evaluation of the data and enjoys the authority needed to co-ordinate the activities of the teaching staff in this endeavour.

*b)* The entire teaching staff must be involved in the task of identifying the causes. This is important for two reasons. First, it clearly conveys the message to the local community that the school as a whole takes responsibility[19] for its students' results and second, it creates an opportunity to build a common approach, which in itself constitutes a first step towards a solution.

*c)* Schools may need external assistance with the task of identifying the causes. Central and local school governing institutions should undertake to ensure that schools have access to independent and competent professional help as needed.

*d)* The investigation into the causes may lead the school or the external expert advisor to conclude that the school's poor performance cannot be explained by deficiencies in the school's or its teaching staff's activities but appears to be the result of external factors, such as insufficient resources, the education poli-

[19] It would be unreasonable, for instance, to hold only the Hungarian language teacher responsible for the students' poor results in reading comprehension.

In Hungary we do not have an institution vested – with higher level powers in education matters than the local governments – which could offer an effective and binding institutional solution to the failures of the school system. The delivery of an efficient accountability programme is therefore contingent on the institutional restructuring of the national educational system.

cies of the local government or the spontaneous selection processes induced by the school choice system.

When we are faced with similar problems we must be aware of the fact that in present day Hungary we do *not have an institution – vested with higher level powers in education matters than the local governments* – which could offer an effective and binding institutional solution to such failures of the school system. The delivery of an efficient accountability programme is therefore contingent on the institutional restructuring of the national educational system with the aim of establishing such an institution. Chapter 10 of this Volume, where the institution structure and finance of education are discussed, presents a detailed proposal for the resolution of this institutional anomaly.

## ■ THE CURRENT HUNGARIAN SCHOOL EVALUATION SYSTEM

The current school evaluation system was introduced in Hungary in the 2001/2002 academic year. The main features of the system are the following.

Institution level evaluation relies on its students' individual performance, which is assessed with the help of standards based testing suitable for inter-institutional comparison. The tests currently cover two key competencies: reading literacy and mathematical literacy.

In addition to the total population of fourth grade students participating in a diagnostic assessment programme, all students in grades 6, 8 and 10 are mandatorily tested for these two competencies at the end of the academic year (on a given date everywhere in the country) as part of the normal school-year schedule. Only a small share of students with special educational needs are involved in the assessment programme.

At the time of testing, questionnaires related to family background are handed out to the students, which are optional to complete and do not include any questions that would allow the respondent to be identified. Usually about 80 per cent of students return completed family background questionnaires, which provide important background information for the evaluation of the test results. Public education institutions and their separate sites are also asked to complete background questionnaires on various school or site data, which provide similarly important information for the evaluation of test results. There are currently no unequivocal regulations with respect to the completion of these school/site questionnaires. Failure to complete them and inaccurate information provision do not have any consequences.

The completion of the tests is supervised by school-independent inspectors in only a very small proportion of schools.

Although the total population of students in the given years are required to sit the tests, the evaluation of the results and the *processing* of the available background information were *not comprehensive* up to, and including,

the test cycle in May 2007. Only a small portion of the tests were collected, coded, recorded and evaluated by the central agency. The central processing includes all the tests from a representative sample of 200 schools each for grades 4 and 6 and the tests of every second student in grade 10. The tests of all students in grade 8 are processed. The remaining tests are optionally evaluated by the schools.

The central processing of the tests is the responsibility of the assessment and evaluation department of the Educational Agency. Separate reports are prepared evaluating the results of all affected schools in the country at a school level, at the level of school sites, at a local government level and for the country as a whole.[20] These reports

*a)* present test result averages, national figures, the distribution of test results across school providers, schools and school sites, the distributions of test scores and skill levels;

*b)* contain calculations of school level test result averages with students' family backgrounds controlled for (this is the method used to estimate the school's contribution to student performance);

*c)* contain comparable data on the financial resources, facilities and social composition of schools and school sites.

Intertemporal comparisons can be obtained only by the comparisons of cross-sectional results of consecutive years. The reports are made available to every school and to every school provider. As of 2008, the Public Education Act requires school and school provider reports to be published on the web pages of the Educational Agency thus making them accessible to the general public.

The individual school and other (site and school provider) level reports on the competency tests form the basis of institutional accountability.

*a)* Based on the centrally processed test results of 6th, 8th and 10th grade students, the Ministry of Education and Culture regulations on quality assurance in public education annually specifies an upper limit to the acceptable proportion of students attaining the lowest skill level in a given year in a school.

*b)* If this upper limit is exceeded, the school involved must face serious consequences.[21] The first time this occurs, the school provider is obliged to call upon the school to draw up a plan of intervention within three months of receiving the call. The plan must detail the causes of the poor performance and set out a programme of enhancing the school's activities and improving student outcomes. If the school fails to reduce the proportion of low-performing students to a level below the specified limit as evidenced by the results of the third annual cycle of national assessment and evaluation after the call, the central Educational Agency — in fulfilment of its public education duties — calls upon

[20] See http://kompetenciameres.hu/2006.
[21] See paragraph 99 of the Public Education Act.

the school provider to prepare a plan of intervention within three months. The plan of intervention must be submitted to the Educational Agency for approval. The school provider is required to solicit the assistance of an educational advisory service or an education expert and the Educational Agency — in fulfilment of its public education duties — monitors the delivery of the proposed intervention programme.

## ■ DIAGNOSIS

1. In the current school evaluation system the evaluation of test results is limited to 200 schools for students in grade 6 and to half of the student population in grade 10, which makes the evaluation more susceptible to problems of sample size and thus unreliable. As a result of the partial coverage of central coding and recording, a substantial portion of all test results tend to be lost.

2. Only a small percentage of students with special educational needs (SEN) are tested as part of the assessment programme. This circumstance acts as an incentive to classify students as having SEN and thus exempt them for participation if they are expected to achieve poor test results.

The overall validity of the assessment results is not guaranteed.

3. Only a small percentage of classes participating in a given assessment cycle are supervised by a school-independent inspector at the time of sitting the tests. This level of supervision is insufficient to guarantee the overall validity of the assessment results.

4. Schools and school sites do not risk any sanctions by failing to complete background questionnaires. Since schools are publicly financed institutions, they should be under obligation to supply the required data.

5. The aggregate indicators characterising a school or site as a whole often mask problems which the assessment system is intended to reveal. Relatively large institutions may on the whole satisfy the requirements specified by the law while failing some subgroups of their students, such as *children of poor and uneducated parents*. This is a consequence of the absence of subgroup specific standards in the system.

6. The current system relies on school averages of residual test results with family background controlled for in measuring the institutions' contributions to student performance. This solution — which only controls for the impacts of *current* school and family inputs — is inappropriate since student outcomes are substantially affected by innate abilities as well as *past* family and school inputs, which cannot be taken into account in this model. If

The evaluation system could be improved by using students' identification numbers to link the results of consecutive biannual tests for each student, which permits the development of an evaluation model explaining changes in test results where the effects of past family and school inputs are controlled for.

these factors are not controlled for, the results are likely to be incorrect since part of the effects will be ascribed erroneously to the school, while important school related effects may be ascribed erroneously to other factors. An improved evaluation system could be developed by using students' identification numbers[22] to link the results of consecutive biannual tests for each student, which permits the development of an evaluation model explaining *changes* in test results where the effects of *past family and school inputs* can be controlled for. The school's contribution to student performance can then be estimated from the school average of individual residual effects similarly to the current model.

7. The standards used to evaluate school performance rely on information gathered within an *unjustifiably short period of time*: *the standards are required to be met by each of the separate measurements of consecutive years.* This evaluation system fails to accommodate the fact that the test results are exceptionally susceptible to fluctuations due to random factors, *especially for institutions with small student rolls* (see KANE & STAIGER, 2001, 2002). It is unreasonable to set the standards in terms of individual assessment results within a single year period. A more equitable reference point would be the *average* of consecutive yearly assessment results.

The implementation of the accountability system was accompanied by little effort to create the scientific resources needed for the comprehensive evaluation of assessment results and for refining the assessment programme. Without appropriate knowledge centres, however, schools cannot be reasonably hoped to master an evaluation culture empowering them to draw the appropriate conclusions from assessment results.

8. The implementation of the accountability system was accompanied by little effort to create the scientific resources needed for the comprehensive evaluation of assessment results and for refining the assessment programme. Without appropriate knowledge centres, however, schools cannot be reasonably hoped to master an evaluation culture empowering them to draw the appropriate conclusions from assessment results. The establishment and professional support of knowledge centres are indispensable for the maintenance of an extensive expert advice service needed for the pedagogical renewal of persistently low-performing schools.

9. The practical purpose of standards based testing and the information it provides has been subject to a great deal of confusion. The assessment and evaluation system regularly occasions misunderstandings in Parliamentary debates of the Public Education Act, in the Parliamentary Education Committee and among the education working groups of political parties. The diagnostic assessments designed for individual level educational intervention are regularly confused with summative assessments, which are designed to evaluate schools and not as a reference for individual level intervention. Law making processes in relation to the assessment and evaluation system are characterised by impatience and unjustified activism. Even though the Hungarian system

[22] As of 2007, the necessary legal conditions are granted.

is not yet sufficiently established[23] and its experiences have not been properly absorbed, policy makers bring forward a flow of *ad hoc* proposals on the fastest possible means of converting test results into school evaluations and on methods of penalising low-performing schools.[24] The tasks that should instead be given priority are the careful adjustment of professional standards, the refinement of assessment and evaluation plans, the scientific evaluation of assessment results, the establishment and support of professional working centres responsible for the development of programme contents, a training programme preparing a sufficiently large number of teachers for the task of test evaluation, the popularisation of an educational evaluation culture and the securing of proper financial resources for the assessment and evaluation programme.

10. The assessment and evaluation system is seriously underfunded. The usual budget sources cannot fully support a well designed assessment, evaluation and accountability system. The programme has been hampered by a constant shortage of resources from the very start of its existence (in 2001). The absence of a firm central budget commitment gave rise to an absurd situation in 2005, when as a consequence of the central austerity package, the just recently launched National Assessment of Basic Competences (NABC) supplying the data for the assessment and evaluation system had to be altogether cancelled for that year.

## ■ RECOMMENDATIONS

The tests should be centrally processed for each student.

1. The tests taken by all students in grades 6, 8 and 10 *should be centrally processed* (coded, recorded and evaluated) *for each student*.

2. To be able to follow individual student progress, the results of consecutive biannual tests should be linked for each student with the help of the student identification numbers, while at the same time respecting personal rights to privacy and data protection laws. The collection of test data should have a pan-

[23] This is the consequence of the complexity and novelty of the task and of a chronic shortage of funding. Some countries substantially more developed than Hungary took ten to twenty years to develop reasonably acceptable assessment and evaluation systems. Even these relatively well structured and appropriately funded systems are subject to continuous refinements and enhancements.

[24] This mistaken approach also surfaces in the current Public Education Act. Paragraph 99 of the Act — as was mentioned before — specifies serious short-term measures penalising low-performing schools even though the country completely lacks a network of experts who have the professional knowledge and capacity to assist schools in renewing their educational programmes, which is what low-performing schools would need.

el-like structure to ensure that the individual results of the assessments in grades 6 and 8 can be linked to the individual results of the tests taken by the same population of students two years later (in grades 8 and 10 respectively). In preparation for this programme the necessary student identification codes should already be stored in the next cycle of assessments due in 2008 to allow the data from 2008 to be linked to the results of the assessments in 2010 (and every two years thereafter) at an individual level. This step is currently under development by the Educational Agency.

3. Methods of assessing the competencies of students with special educational needs should be developed by 2010 in the framework of the Social Renewal Operational Programme of the New Hungary Development Plan (ÚMFT Támop). The assessment programme must then be permanently extended to the population of children with special educational needs.

4. The validity of assessment results should be ensured by the more extensive presence of inspectors. The supervision system should be extended step by step, i.e., the number of externally supervised test classes should be slightly increased every year. A reasonable target is having at least half of all test classes in grades 6, 8 and 10 supervised by an inspector in the 2012/2013 academic year.[25] In parallel with the expansion of the supervision system the class-level averages of the results of supervised tests and those of unsupervised tests should be subjected to comparative statistical analyses to reveal whether there are significant statistical differences between the two groups with all other conditions held constant.

5. The estimation of a school's contribution to its students' performance should rely on a value added model incorporating individual level panel-like time series data.

6. The New Hungary Development Plan funds should be used to implement a gradual expansion of the assessment programme to include further competencies, namely, scientific literacy, social skills and some other areas. Test contents should be continuously refined and adjusted. The assessment of reading literacy and mathematical literacy should be supplemented with tests measuring a different set of other competencies each year (as a pilot scheme).

7. Schools should be under a legal obligation to complete the background questionnaires about the schools and their sites.

[25] This is the level of supervision that seems to be practicable given that all testing is conducted on the same day. If the target was to have every testing session supervised by an inspector, the assessments would probably need to be spread over a few days, which would mean testing different grades on different days.

8. The available data should be analysed whether schools (and their different sites) meet the standards specified by the law for *the children of poor and uneducated parents as well*. This task crucially requires accurate records of the number of these students to be included in the Public Education Information System (KIR) database. Schools are currently required by law to keep these records. As part of the data collection activities preceding and preparing for each National Assessment of Basic Competencies, the Educational Agency should be given access to the data kept by the schools' on children of poor and uneducated parents enrolled in the relevant years. Within the period of a few years, the experiences of these measurements *may* lead to the introduction of a set of subgroup specific standards.

The schools' performance in relation to the benchmarks specified by the Public Education Act should be evaluated in terms of the averaged results of a number of consecutive assessment cycles.

9. The schools' performance in relation to the benchmarks specified by the Public Education Act should be evaluated in terms of the *averaged* results of a number of — say, three — consecutive assessment cycles[26] rather than in terms of the isolated assessment results of consecutive years. This method would substantially reduce the measurement error.

10. For the tasks of interpreting the final results of the assessment and for the planning of appropriate responses to them, knowledge centres specialising in assessment and evaluation, statistical analysis and social sciences should be established. It should be ensured that these centres have access to modern international theoretical and empirical evidence related to accountability systems. The knowledge centres should be granted support and reliable funding from sustainable budget sources. They could fulfil the function of expert advisory boards responsible for offering competent professional assistance to low-performing schools. The knowledge centres — preferably affiliated to major universities — could also function as training centres offering basic and advanced training for teachers to master the skills required for data evaluation.

Planned performance-based incentives should be piloted in schools within a relatively small continuous geographical unit and should be refined based on these experiences.

11. Prior to their wide-scale introduction, planned performance-based incentive programmes should be piloted within a relatively small continuous geographical unit (the schools in a single town or in a rural school association) with the voluntary and active participation of the selected local governments and schools. The plans should then be refined based on the experiences of the trials.

12. The central budget funding allocated for the assessment and evaluation programme should be substantially increased; the problem of permanent underfunding should be eliminated. The resources allocated for the system up to

[26] This method could be implemented by using three-year rolling averages.

and including the 2007 budget year are not sufficient for a modern assessment and evaluation system or for the implementation of the proposals outlined in the present study. It should further be ensured that the resources allocated for the programme remain stable and independent of the actual state of the central budget. A stable financial foundation should be secured preferably based on a per-student funding formula.

## ■ THE COSTS OF THE IMPROVED PROGRAMME

Up to and including the 2007 budget year, the Educational Agency responsible for administering the National Assessment of Basic Competencies programme and for evaluating the results had access to an annual budget of about 300 million Hungarian forints to implement the testing of the total student population attending grades 4, 6, 8 or 10 and to complete the evaluation of the results of 4th grade and 6th grade students from 200 schools each, the results of all 8th grade students and half of all 10th grade students (including the infrastructure and logistics of the entire process). The comprehensive processing of the complete set of data of grades 6, 8 and 10 (including coding and digitalising the data and evaluating the results) would cost about twice that amount: about *600 million forints* a year at current (May 2008) price levels.[27]

Assuming an intention to implement full-coverage central processing of the assessment results, external supervision covering 50 per cent of test classes in the above three years of study in 2012/2013 would cost about *250 million forints* at current price levels.[28] The costs of the stepwise expansion of inspector involvement depend on the pace of the expansion between 2008 and 2012. If, for instance, we set a target of 20 per cent supervision coverage for 2008, about 3000 inspectors will need to be delegated at a cost of about *95 million forints* at current price levels.[29]

With the figures presented in the previous two paragraphs added up, an annual budget of about *700 million forints* is required to sustain a modern assessment and evaluation system in the short term (in 2008),[30] and its maintenance would still not exceed an annual budget of *850–900 million forints* in the longer term (in 2012).

Further resources may be needed for the establishment and support of educational evaluation knowledge centres. These tasks can be partially funded from National Development Plan sources but their uninterrupted sustained

[27] Estimate approved by the Educational Agency.
[28] Estimate approved by the Educational Agency.
[29] Estimate approved by the Educational Agency.
[30] The Budget Act of 2008 allocates 700 million forints for the National Assessment of Basic Competencies due in May 2008.

operation also calls for reliable central allocations. Estimations of these costs are discussed in Chapter 9 of this Volume "The scientific foundations of learning and teaching."

### ■ LINKS TO OTHER PROGRAMMES

The recommendations outlined in this chapter share several points with the proposals discussed in Chapter 9 of this Volume. The modernisation of the public education assessment and evaluation system cannot fulfil its function unless the scientific and research base of pedagogical culture is strongly supported. A knowledge base is indispensable for the planning and successful delivery of professional intervention measures offering an — admittedly arduous — solution to the failures of the school system. In this respect our recommendations are also closely related to proposals aimed at palliating the school failures of children of poor and uneducated parents.

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# II. EXTERNAL CONDITIONS FOR RENEWAL

# 8 Teacher training and professional development

[Andrea Kárpáti]

Some of the factors characterizing education in schools (class size, expenditure per pupil) do not have demonstrable effects on student performance while teacher quality (as measured by skills, knowledge and qualifications) plays a decisive role in students' progress (HANUSHEK, 2003; BARBER & MOURSHED, 2007; VARGA, 2007). Based on an analysis of teacher training policies in 25 countries, the OECD (2005) report cogently entitled *Teachers Matter* comes to the conclusion that teacher quality is the most important factor in an education system, and the second most important factor (only preceded by family background) among the variety of influences affecting student achievement. McKinsey & Company investigated the factors behind the accomplishments of the most successful education programmes in Asia, Europe, North America and the Middle East as evaluated by the OECD PISA survey[1] conducted between May 2006 and March 2007. In their summary of the research results, the McKinsey report comes to the conclusion that certain education systems achieve substantially better outcomes than others because "they have produced a system that is more effective in doing three things: getting more talented people to become teachers, developing these teachers into better instructors, and in ensuring that these instructors deliver consistently for every child in the system. (...) The quality of an education system cannot exceed the quality of its teachers" (BARBER & MOURSHED, 2007). This appears to be the area that resources should target; knowledge-intensive training institutions and knowledge-rich teacher development centres should be provided.

## ■ DIAGNOSIS

1. *Teacher competences, training requirements.* The primary aim of teacher training is to develop educational skills that are compatible with education policies and to enable teachers to deliver these policies. It is a complex task to define teaching practices that have an impact on student performance since what counts as an effective teaching strategy varies by student age group, per-

[1] *Programme for International Students Assessment*.

Different age groups, personalities, learning abilities and social backrounds call for different teacher skills.

sonality, learning ability and social background, and different strategies call for different teacher skills (GUSTAFSSON, 2003). Easy-to-gather, formal measurements such as student test scores, teacher qualifications and years of teaching experience are insufficient in evaluating teacher competences (HEDGES & GREENWALD, 1996). Several other factors need to be taken into consideration: the ability to convey knowledge, communication skills, knowledge of the subject matter and professional development attainment.

Most studies concerned with the teaching profession look at measurable characteristics: the composition of the teacher population, the work load of teachers and their salaries. Convincing portrayals of teachers' life histories, their attitudes towards their profession and their vocational creed have been published in several case studies, collections of interviews and other studies summoning the tools of cultural anthropology or sociology as well (FALUS, 2002). It is a teacher's duty — among other things — to develop the skills which are essential for a knowledge-based society and economy to prosper, to be committed to change, to counterbalance rampant consumerism, to create a community and to lessen the gap between the rich and the poor. Among key teacher competences good communication skills often receive prominent mention. For a teacher to fulfil his or her professional function in a given domain, a synthesis of knowledge, attitudes and practical skills is needed (FALUS, 2002).

European teacher training experts (the national delegates of the EU working group) have compiled a list of new requirements concerning teacher competences, which combines issues of education policy and research in setting a direction for teacher training. Comparing these requirements to the Hungarian regulations on teacher qualifications, we fortunately find a substantial overlap *(Table 8.1)*. The Hungarian set of requirements, however, does not include two groups included in the EU document: social and civic competences and, within that, an interest in highlighting and solving problems. The EU document makes it clear that key competences include a readiness to attend to the needs of pupils or students of different social, cultural or ethnic backgrounds. These requirements are substituted in the Hungarian set of objectives by the following: "exploit the pedagogical potential inherent in learner communities, assist an understanding of individual differences, make use of inter-cultural education programmes, develop co-operation skills" (Appendix 4 to Ministry of Education Decree 15/2006 [April 3]).

A new professional profile needs to be created, and training practices should meet the new challenges and tasks.

A sound requirement is one that yields better outcomes for those teachers who observe it compared to those who do not. The experiences of the EU working group on teacher training point to the conclusion that a *new professional profile* needs to be created for teacher training, and training practices should meet the new challenges and tasks. Greater emphasis should be placed on cooperating with schools and teaching staff should have a greater say in defining a good teacher. Practicing educators' aptitude for self-reflection needs to be reinforced, external inspection should be given a greater role and teachers should be more open to new education methods. These changes, however, can-

[TABLE 8.1] TEACHER COMPETENCES AS SET OUT IN EU DOCUMENTS AND IN HUNGARIAN REGULATIONS

| KEY COMPETENCES IDENTIFIED BY THE EU WORKING GROUP | HUNGARIAN REQUIREMENTS OF TEACHER QUALIFICATION |
|---|---|
| Competences related to the learning process | To shape students' personalities |
| To help students to become citizens of their countries | |
| To develop skills and competences that are needed in a knowledge-based society | To support and develop student groups and communities |
| To connect new competence development with subject knowledge acquisition | To develop educational methods |
| Competences related to the teaching process | To use professional skills to increase students' knowledge, skills and competences |
| To attend to the needs of pupils or students of different social, cultural or ethnic backgrounds | To exploit the pedagogical potential inherent in learner communities, to assist an understanding of individual differences, to make use of intercultural education programmes, to develop co-operation skills |
| To create an effective learning environment which supports the learning process | To use a variety of educational assessment methods<br>To organize and lead the learning process |
| To incorporate information technology in various learning situations and all teacher activities | To develop varied teaching and learning methods, to select appropriate learning resources, to use new information and communication technologies, to create an effective learning environment |
| To collaborate with other teachers/instructors and other professionals involved in the education of the same groups of pupils or students | Professional collaboration and communication |
| To participate in the development and evaluation of school or teacher training curricula and organization. | A commitment to professional development and learning |
| To build a partnership with parents and other social partners | Professional collaboration and communication |
| Competences related to the civic role of teachers | *Not included* explicitly! |
| An interest in highlighting and solving problems | Not included! |
| To organize and advance one's own professional development as part of lifelong learning. [Teachers must equip their students with competences needed in a knowledge-based society. (...) Teachers must be prepared to take initiative in their careers.] | To develop the foundations of lifelong learning |

[SOURCE] EU: NAGY (2004); Hungary: "Objectives of teacher training, key professional competences" in Appendix 4 to Ministry of Education Decree 15/2006 (April 3).

not be delivered unless the different partners involved in education services collaborate in their efforts.

The evaluation of teacher competences can only fulfil its objective of becoming a catalyst and benchmark for professional renewal if it is based on a broad professional consensus. The criteria used for teacher evaluation in Hungary were surveyed in terms of the responses of school headmasters in the National Assessment of Basic Competencies (NABC) in 2004 and in the following year's analysis of school outcomes carried out by the research centre of the National Institute for Public Education (OKI). These reveal that headmasters tend to rely on their personal experiences and pay less attention to feedback from students, parents or colleagues, or to the literature on teacher competences, since — as was mentioned before — scarcely any studies are available in Hungarian. (There are two studies, however, which headmasters would find illuminat-

ing: FALUS, 2004 and GOLNHOFER & NAHALKA, 2001.) The top-rated requirement identified by headmasters is the following: *"a keen interest in shaping student personalities,"* while ranked bottom is *"a willingness to perform additional duties."* (This might be an indication of how talented those students are who go on to become headmasters!) The list of assessment criteria also includes experiences of class visits, participation in professional events and students' competition results.

The only way to assess teacher competences is to observe teachers at work, in the school.

The only way to assess teacher competences is to observe teachers at work, in the school. Class visits offer a direct means of doing this but appropriate data can also be collected regarding new or experienced teachers by looking at student accomplishments or by interviewing headmasters, colleagues, students and parents. Researchers find it difficult to monitor teacher performance systematically because — in contrast with student assessment tests — *there is no regular data collection and even the sporadic data collected are not retained. Thus the relationship between changes in student outcomes and teaching activities cannot be assessed.* This is unfortunate, since — as has been demonstrated by research into teacher assessment in American school districts — this task is just as important and fruitful as devising plans of new education programmes.

Requirements defined in terms of teacher competences cannot fully replace qualification requirements since the latter must be measurable in an unambiguous and economical way (FALUS, 2002). Indicators of teachers' qualifications, the so-called *standards* define levels of competence in a way that is sufficiently specific, explicit and simple to measure in order to provide a clear and reliable criterion for awarding qualifications regardless of where a candidate completed teacher training studies (TDA, 2005). For the assessment of teacher performance, in contrast, at present no indicators are available which could provide unambiguous and simple to use methods of measurement.

At present no indicators are available which could provide unambiguous and simple to use methods of assessing teacher performance.

2. *Reform of teacher training.* In June 2004 the Hungarian government approved the national Bologna-strategy and a Teacher Training Subcommittee of the National Bologna Committee was set up in the same year. It was soon decided that the earlier dual training structure would be replaced by a new multi-level, linear structure. A number of new clauses were added to the set of teacher training regulations which addressed the problems of the old system and outlined a new approach to teacher training.[2] The most important element of the reform is that teaching qualifications are now awarded at the second, master's stage of the multi-level training system. At the first level of training, students acquire the foundations of their chosen subjects — accord-

[2] The Decree on the introduction of the multi-cycle education structure names 102 degree courses at bachelor's level and six so-called uninterrupted courses leading to master's level (the latter of which do not offer a Bachelor's Degree). §7 of the Decree defined the general principles of master's level teacher training as a continuation of bachelor level programmes. The requirement of a standardised master level teacher training programme has been included in the new Higher Education Act.

The implementation of the Bologna process in Hungary encounters the problem that the criteria of quality training are not defined in sufficient detail.

ing to a standardized curriculum. The implementation of the Bologna process in Hungary encounters the problem that the criteria of quality training are not defined in sufficient detail. There has been a need for a standardized, university-level teacher training programme for a long time. But now colleges are licensed to launch master's programmes for teacher training, which means that the proposed standardization process may be realised at college level rather than at university level.

The Hungarian Parliament ratified a legal framework for the Bologna process in 2005. The major features of the new teacher training system are set out in the new Higher Education Act.[3] A government decree has been issued regarding bachelor's level and master's level education outlining the principles of teacher training and specifying a list of subjects that are accepted as majors in teacher training. To obtain the new Master's Degree in Education students must earn 40 credits in subjects in pedagogy or psychology and subsequently undertake teaching practice (internship) at a school for a full semester, which is worth 30 credits. Introductory courses worth ten credits can be taken at the first stage of studies in parallel with BA or BSc courses. In addition to these 80 credits, students are required to earn at least seven credits in teaching methods relevant to their subjects.

The detailed training requirements mention several modern methods which are markedly missing from current training. It is also stated that a large element of the programme should be taught in small groups. The traditional teacher training curriculum encompasses three broad areas, one of which, the history of education, is not a compulsory subject in several EU countries.

It is highly debatable whether this increasingly voluminous subject area should remain part of the compulsory curriculum of the new shorter training programme.[4] Pedagogy and education theory courses should be modernized. Foreign language education, for instance, is characterized by a shift from an academic philological focus towards applied linguistics and methods which have been empirically proven to be effective, which are clearly more profitable skills in everyday teaching practice. The teacher training programme currently awaiting approval is expected to introduce a similar shift in pedagogy and in the education theory syllabus, with the results of research on classroom teaching included. Hungary has a tradition of high standards in teaching academic subjects as part of the teacher training curriculum but these are not linked to pedagogy or psychology blocks either in content or in method. In other countries, representatives of different subject-based teaching methods and instruction

Academic subjects of the teacher training curriculum are not linked to pedagogy or psychology blocks either in content or in method.

[3] Higher Education Act CXXXIX of 2005 (Nov. 29th, 2005).

[4] The history of education appears in various incarnations in master's curricula. The history of educational institutions and childhood is part of the foundational stage of teacher training. The history of different subject areas and even youth movements are taught in separate courses later on. For the time being only one of these, usually the traditional, chronological history of pedagogy, is compulsory.

theory are all gathering into a united scientific-professional community characterized by a commitment to empirical research methods based on classroom teaching. In Hungary, in contrast, different interpretations of a teacher's role and subject-based orientation remain the norm — in large part because people have no experience of research of this kind leading to professional debates.

The new teacher training model assigns an important role to subject specialists on the teacher training staff, who make regular visits to schools and maintain contact with senior teachers, and work with students in the form of case-study seminars. However, not even the methodologically most progressive foreign language education programme can provide instructors of this kind in all of the subjects on offer; an intensive continuing professional development programme is therefore needed. Co-operation between teachers specializing in different subjects within the same subject area (e.g. foreign languages or natural sciences) should be encouraged by offering shared foundational methodology classes. Subject teaching methodology courses could be more uniform and effective if methodology common to all subjects in a given area was taught to all trainee teachers as a foundational course and subject-specific methods were added at a later stage.

3. *The quality of trainers.* Hungary has a number of higher education institutions, of varying standards, that offer teacher training programmes — 33 institutions in total.[5] 85 per cent of teacher trainees attend one of 16 academic universities or 10 vocational colleges under state ownership. Teacher training is also offered in two church-run academic universities and three church-run colleges as well as in some endowment-funded or private colleges. The heterogeneity of teacher training is well illustrated by the fact that there are institutions where only one teacher training specialization is offered. Not counting the wide variety of musical instrument and vocational subject teacher specializations, about 130 different teaching majors are on offer at present, with a declining number of students taking them (NAGY & VARGA, 2006). Training programmes at the large number of independent, largely autonomous institutions are run without any sort of regular central outcome assessment or other control mechanism. It is doubtful whether the entire range of institutions — which are incomparably distant from each other in terms of mission, infrastructure and human resources — will be capable of offering teacher training programmes meeting the same requirements. (See the box *International experiences in central control over teacher training programmes*.)

Teacher training higher education programmes are offered at a large number of largely autonomous institutions of varying standards and are run without regular central control mechanisms.

Teacher training institutions should implement a quality assurance and evaluation system that incorporates measures to prepare for the new competence requirements.

The EU working group finds that teacher training institutions should implement a quality assurance and evaluation system that incorporates measures to prepare for the new competence requirements (NAGY, 2004). A quality assurance programme of this kind — or any other kind that has a genuine impact on

[5] While medicine, for instance, is offered by only four institutions in Hungary.

## INTERNATIONAL EXPERIENCES IN CENTRAL CONTROL OVER TEACHER TRAINING PROGRAMMES

Teacher training is subject to central control in some European countries. In the United Kingdom (England and Wales), for instance, central control of teacher training was increased in the nineties by introducing standard curricula in teacher training programmes and/or professional benchmarks for teacher qualifications. A training inspection system has also been implemented. Teaching staff at British universities are assessed every five years; the assessment, far from being a simple formality, is a highly rigorous process. The Research Assessment Exercise (RAE) (http://www.rae.ac.uk/) is based on peer review. In teacher training, for instance, a panel of 16 specialists is commissioned by the government to visit institutions and evaluate the quality of professional achievements of eminent members of staff selected by the institution for inclusion. The evaluation is not simply based on the number and prestige of publications and research projects but also on their contents — that is, the publications selected by their authors as their best works are read through by the panel! The results of the RAE have a direct effect on the future of the institution, as the rating is one of the most important considerations in allocating funding. (The Hungarian system of ranking universities by research involves a similar process but there is a fundamental difference: every senior member of academic staff is included in the RAE. Those who are not selected for inclusion by their institution will soon need to look for another job.)

In Britain (similarly to Germany, for instance) even university professors are subjected to a strict evaluation process three years into their appointment. In Germany, academic appointments *(Berufung)* are initially given for three years only, and the rule equally applies to everyone from junior lecturers through to the highest academic ranks. It is a frequent event here that an institution parts with a full professor due to inadequate achievement — something that is unthinkable in Hungary. An interesting component of the evaluation procedures applying to would-be professors is the requirement to teach a class in addition to giving a university lecture. By teaching an unknown class of pupils, would-be professors must demonstrate their practical knowledge of the type of school about which they will lecture. They must show that their teaching skills meet (at least) as high standards as they expect of their students — i.e., that they are authentic teacher trainers. The system is clearly not without faults, but it guards against one problem: sinking into a state of idleness after completing a PhD.

education — can only be set up if teacher training has a firm position within a given higher education institution. Traditionally, pedagogy and psychology departments, and specific subject instructors are in charge of teacher training programmes and are also the most active participants. These institutions typically form isolated islands of training; they struggle with the new requirements of teacher training on which they make little impact and where their concerns carry little weight. Their programmes are delivered with no consideration given to the career prospects of their students nor is it examined whether graduates who choose a teaching career will make good teachers or, whether the knowledge they have acquired can be put to good use. Opinions of, and feedback from, the students concerning the institution where they completed their training is rarely sought.

A possible measure of training (and professional development) institutions is to what extent they can fulfil a basic education task. It has been shown by several studies that teachers' views of child development and learning only marginally differ from the views of the general public (HERCZ, 2005). The following example provides an apt illustration of the gap between teachers' assessment practices and the outcomes of standard competence evaluations. Teaching quality greatly depends on teachers' competence in assessing the progress of their pupils and providing feedback on their performance. Teachers test pupils' knowledge orally and in writing on a daily basis and the responses are marked. Marks give a fairly good indication of what is considered by the teacher to be important in a pupil's performance. Studies (e.g., CSAPÓ, 2002*a*, 2002*b*) reveal, however, that marks in many cases show little correlation with the results of tests that assess pupils' knowledge objectively. There is an even weaker relationship between teachers' marks and the results of tests assessing comprehension, the ability to apply knowledge or to solve problems. Teachers tend to equate learning with reproducing knowledge, and the consequences of this approach are clearly reflected in an international comparison showing that Hungarian students have underdeveloped learning skills with the main emphasis on rote learning (OECD, 2003*a*). Teachers often appreciate subsidiary aspects of pupils' performance such as good communication skills. They may thus continue teaching using the same methods year after year in the firm belief that those methods are the best. Teachers must be much better acquainted with the personal development features of their pupils, with learning processes and with the indicators of learning quality and knowledge application, and they must discover tools for assessing the progress of their pupils more accurately. This should clearly be the responsibility of teacher training and professional development programmes, the effectiveness of which can be assessed through teacher competence tests and by monitoring changes in pupil assessment culture.

Teachers must be much better acquainted with personal development features of their pupils, with learning processes and with the indicators of learning quality and knowledge application.

4. *Research-based teacher training.* Since the decentralisation of the education system commencing in the early nineties teachers have regularly been given tasks for which they have not been prepared. At most schools, for instance, teachers have had to devise local curricula while the country has had difficulty putting together a single team of educators competent in curriculum design. The decentralisation of knowledge and its transfer to a local level is a task still waiting to be completed in several areas. If teachers are to be given ever greater responsibility in decision making they must be equipped for the task. Teachers, however, constantly make decisions which could always be, at least, improved. It is this problem that research-based teacher training is intended to solve.

Since the decentralisation of the education system teachers have regularly been given tasks for which they have not been prepared.

Research-based teacher training was put in the spotlight thanks to the spectacular achievements of the Finnish education system (JAKKU, SIHVONEN & NIEMI, 2004). In sectors with a fast paced accumulation of knowledge there is no time to wait for new knowledge to be incorporated; it must be transferred to practical application almost as soon as it emerges. In Finland, nursery teach-

ers and primary and of course secondary school teachers are proportionally represented among professionals with Ph.D. degrees (KANSANEN, 2003). This disposition to attain advanced academic qualifications increases the added value of school work to pedagogical research (as the majority of candidates choose an educational problem rather than the turbulent history of a teacher training college in a Finnish suburb as their research subject). Also, teachers with experience at all three levels of teacher training, where in addition to research methods important international literature is also studied, will be substantially more inclined to adopt the key requirements of an education reform. A teacher training programme that integrates a teacher model with a researcher model not only encourages but also substantially speeds up the continuous renewal of education.

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To achieve this goal, research centres should be established supporting teacher training. In developing a knowledge base for education, two important factors must be taken into consideration — research into instruction theory[6] and the education of teacher trainers (CSAPÓ, 2006, 2007). Studies on the significance of education research and the interrelationship between research and training invariably point to the fact that the system is severely underfunded.[7] It is therefore especially important that the few research outcomes that are produced in the face of meagre resources should be incorporated into teacher training without delay. Researchers who find new evidence, make new discoveries in connection with education or develop new teaching and learning methods should be able to pass these on to would-be or practicing teachers directly. This is why it is crucial to transfer teacher training programmes to research universities, where pedagogy and psychology courses are taught by academics who are active participants in research projects in their respective fields. With research and training combined at the level of the individual, the process of incorporating new knowledge into the training syllabus will be accelerated since in addition to contributing their own results to the available body of knowledge, trainers also keep up with the literature in their research area and thus constantly renew their knowledge. Furthermore, publications detailing the results of their research are the best evidence of the knowledge they possess.

If teacher training programmes are transferred to research universities, pedagogy and psychology courses will be taught by academics who are active participants in research projects in their respective fields.

The quality and citation index of publications can be assessed with reference to recent research data (TÓTH, 2008) evaluating publications by 463 academics in pedagogy or education theory working at 28 higher education institutions offering nursery, primary or secondary teacher training programmes. Almost 80 per cent of the observed 430 instructors had no publications accessible on

[6] The issue of the scientific foundations of learning and teaching is discussed in detail in Chapter 9 of this volume.

[7] The disadvantage of Hungarian research is shown by several indicators. The United States and Japan allocate more than three per cent of their GNP for research. This indicator has an average value of less than two per cent in the European Union and less than one per cent in Hungary while Finland and Sweden lead with about four per cent.

the Internet, 11 per cent had one or two and only seven instructors had over ten publications. An examination of local publications, the Social Sciences Citation Index (SSCI) and the Google Scholar database revealed that 90 per cent had a citation index of zero (including self-citations!), barely over 5 per cent reached a citation index of five and under 2 per cent were cited at least ten times. Citation indices could be calculated for 91 academic staff members. The results show that only 28 members of staff in education had 1 citation per publication on average, which is an indication of their professional impact. Only 14 of the 430 observed academics were cited at least twice per publication — they can be regarded as having a major scientific impact (TÓTH, 2008).

The success of the innovation is equally endangered by the large number of teacher training institutions and their meagre achievements in research and development, by academic staff who stay away from international research communities and fail to follow the development of innovative models in countries with successful education programmes, and by the obsolete infrastructure of teacher training institutions. If educationists are not expected to keep up with the results of international education studies, the competence-based education model developed with substantial Hungarian and international resources cannot be incorporated into teacher training programmes and the powerful new paradigms will not reach beyond an experimental phase. If teacher training continues to be characterized by frontal teaching and provincial content, the millions of Euros allocated for the renewal of education will remain without effect; modernization will halt at the gates of training institutions.

5. *Researcher-teacher.* Teachers must be shown how to recognize good practices emerging around the world and where to find new scientific results in connection with teaching. They must be equipped with the skills needed to participate in research activities, to contribute to research and development projects and to make use of research conclusions in their teaching practices. Research-based teacher training goes even further: a teaching career is seen as a continuous research and development process, whereby the teacher makes use of scientific evidence to generate the knowledge needed to improve teaching activities. This approach gives rise to a new role model, that of the researcher-innovator teacher. This model used to have a tradition in Hungarian secondary schools but was displaced as a result of a shift towards over-standardized and bureaucratic education policies which were accompanied by declining prestige and pay.

The researcher-innovator teacher as a new role model.

The significance of the transformation of the role model cannot be overestimated — it is the driving force behind the renewal of visual culture education in Hungary, for instance, thanks to which traditional fine art education is now complemented by visual communication and environmental studies in thousands of primary and secondary schools. When art teachers only included painting in their syllabi, there was no channel to teach modern visual culture (KÁRPÁTI & GAUL, 1995).

A good example for research-based teacher training in Hungary is the programme launched in 1991 at the University of Szeged, where assessment spe-

cialists are trained in a professional development programme. Students learn to construct assessment tools and to set up experiments. They draw on these skills to write their dissertations. After graduation most of the students return to their original schools to teach and put the knowledge they have acquired into practice. They improve teaching methods, conduct professional experiments and evaluate their results with scientific methods. Many of these teachers keep in contact with their former tutors and take part in research projects. They come back for advice, tools and ideas; many of them publish professional papers on the outcomes of their experiments and innovations.

The research-teacher role is also advocated by excellent pedagogy conferences organized in Hungary (the National Conference in Education Studies, the annual pedagogy meeting held in Lillafüred, the annual education assessment conference organized by the Institute of Education, University of Szeged, etc.) It is our hope that educators and researchers participating in these meetings will soon find the motivation to attend relevant international forums as well, thus expanding the currently very small group of professionals with international experience.

In Hungary, the massive expansion of teacher training has not been accompanied by a proportional increase in the number of schools participating in teaching practice schemes, which has had a negative impact on quality.

6. *The role of teaching practice in teacher training*. Every study focusing on a good strategy observed in teacher training highlights the importance of teaching practice and school placement (also known as school residency program). In Hungary, the massive expansion of teacher training has not been accompanied by a proportional increase in the number of schools participating in teaching practice schemes, which has had a negative impact on quality. A further problem is that participating schools are of excellent standards (far exceeding the national average) and are thus unsuitable for preparing trainees for the reality shock they are likely to encounter at their first workplace. The current 2–4 week period of in-school training is to be extended to six months, which requires several additional senior teachers, or mentors, assisting the trainees' work.

Very few teacher training institutions offer mentor training.

At present very few teacher training institutions offer *mentor training* (training programmes for teachers assisting teacher trainees during their practice). A programme of this kind can only be developed by a co-operative effort between subject specialist teachers, general educators and education policy professionals for each individual field. Instructors of teaching methodology (with the exception of those in charge of organizing placement) do not maintain regular contact with teachers at schools participating in teaching practice schemes. It is difficult enough to fit the observation of the growing number of trainees' practice classes into their work schedules, let alone accommodate training courses for mentors.[8] While the extended period of

[8] The work of *subject specialist teachers* should be rewarded with all their duties taken into consideration. Class observations, dissertation assessment and participation in qualifying examination boards are often disregarded in evaluating departmental work load with the result that these activities remain essentially unpaid.

teaching practice — one of the key components of quality teacher training — is a welcome change, both the necessary human resources and material conditions are missing.

*7. Selectivity in teacher training.* Countries with successful teacher training programmes enforce strict selection criteria in granting admission (one in six applicants are admitted to teacher training programmes in Singapore and one in ten in Finland). Countries with successful and unsuccessful programmes differ in their selection strategies. Successful countries are selective in admitting applicants while less successful systems allow great numbers of candidate teachers to obtain their academic degrees leaving the selection process to schools. (See the box *Student selection in teacher training* for a discussion of teacher training admission policies.)

In Hungary, teacher training programmes are oversized in terms of student numbers and skewed in terms of the distribution of specializations. It is both impossible and uneconomical to deliver quality teacher training.

In Hungary, an excessive number of students are enrolled in teacher training programmes and different specializations are offered in skewed proportions. It is both impossible and uneconomical to deliver quality teacher training to congregations of this size. Trends in the number of applications indicate a decline in the proportion of school leavers who find a teaching career an attractive choice. The number of people who apply to nursery, primary or secondary school teacher training institutions as their first choice has recently plummeted and the school results of applicants are below the national average (NAGY & VARGA, 2006).

Teacher training programmes were chosen by school leavers with poorer than average skills (VARGA, 2007) and, since there were relatively few applications for a large number of places, applicants were practically freely admitted. If students bring with them poor levels of knowledge and skills, training cannot maintain high standards.

Those students are suitable for a teaching career who are equipped with *entry competences* that can provide the foundations for the acquisition of a set of effective methodological tools in the course of their studies. These competences include advanced literacy and numeracy, good social skills, effective communication, an aptitude for lifelong learning and a desire to share knowledge. All of these can be assessed by a selection procedure, in the course of training or even at the time of resident training.

In principle, the introduction of two-stage teacher training could have improved selectivity since teacher training has been transferred to master's level and students now have to pass two selection procedures: their school leaving examination results must meet certain criteria to be admitted to bachelor's courses and their suitability for master's courses will be assessed through a teacher training entrance examination to be introduced in 2009. There is no guarantee, however, that teachers graduating from the new system will be better than previous generations unless fundamental changes are introduced to make teaching careers more attractive. If this does not happen, no-one other than the weakest third of bachelor graduates will be motivated to take master's

An improvement in teacher quality cannot be expected unless fundamental changes are introduced to make teaching careers more attractive.

## STUDENT SELECTION IN TEACHER TRAINING

The most successful countries are selective in admitting applicants to teacher training programmes. The two most important examples are Finland and Singapore. Selection procedures are designed to assess skills and aptitudes needed for a teaching career and are used to select applicants for admission. The selection procedures of both countries focus on applicants' academic performance, communication skills and professional motivation. In Finland, applicants are assessed in two screening cycles. The first round of entrance examinations is under central control throughout the country, the national test was introduced in 2007. It is a multiple-choice task testing mathematical, literacy and problem solving competences. Applicants attaining the highest scores are admitted to the second round, which is administered by individual universities. Assessment at this stage focuses on communication skills, learning aptitude and skills, and on applicants' commitment to a teaching career. Finally, the most suitable candidates are selected on the basis of their teaching practice and it is those who are awarded a degree and can get a job (10 per cent of admitted trainees) (JAKKU, SIHVONEN & NIEMI, 2006).

In Singapore, only every sixth applicant will become a candidate teacher. Those whose curriculum vitae meet some basic entry requirements are invited to attend an examination where their literacy skills are assessed, which research results have shown to have the greatest impact on teacher success. Applicants next attend an interview and personality assessment, which also feature practical exercises. 80 per cent of applicants are rejected at this stage, 18 per cent start the teacher training programmes to which they have been admitted, the same number of students complete their studies, and each one of them starts a career as a teacher. The students are employed by the Ministry of Education from the beginning of their studies and receive a salary.

courses in education. Also, as no changes have been introduced in the structure of nursery and lower primary school teacher training, student quality is unlikely to improve.[9]

In Hungary, the Bologna process could be used to reduce the number of places in master's courses by introducing sufficiently rigorous conditions on offering master's programmes. Ongoing accreditation processes suggest that strict quality requirements are only met by a few general knowledge courses with long-standing traditions. At the same time, a dozen or so new master's programmes have appeared in teacher training, which do not have a background of strict professional control by a community in an established scientific discipline. The ample range of programmes successfully passing the accreditation process, i.e., gaining approval to be launched, act as an encouragement to the large number of Hungarian universities to seize the opportunity and launch these programmes, if not with government-funded student places, then with self-financing places. It seems, then, that without central intervention the Bo-

[9] The issue of negative self-selection in choosing a teaching career and proposals on improving newly qualified teachers' salaries are discussed in Chapter 10 in this volume.

logna process will not reduce the number of teacher trainees, even though the number of schools and especially pupils declines year after year.

Certain natural science programmes, in contrast, struggle to attract a sufficient number of students to secure new supplies of teachers minimally needed in the education system. There is a serious risk that the huge number of new teachers with dubious professional backgrounds will further weaken the position of subjects intended to equip pupils with general foundational knowledge, and natural sciences will irreversibly lose their footing in public education. The only solution is to limit the number of student places in parallel with making teaching careers more attractive. If teachers' working conditions do not change, there will be nothing to reverse the current negative self-selection effect. International experiences show that in addition to improving teachers' salaries, several measures can be introduced to make this career more attractive (see the box *International experiences of making teaching careers more attractive*).

If teachers' working conditions do not change, there will be nothing to reverse the current negative self-selection effect.

8. *Funding teacher training.* Quality teacher training is not cheap. At present teacher training is one of the relatively low cost higher education programmes as it covers 32 per cent of state-funded student places while absorbing 30 per cent of the total education expenditure. This is probably among the reasons why substantially more students are admitted than the EU average. However, only 60 per cent of nursery and primary school teacher trainees and 40 per cent of secondary school teacher trainees choose a teaching career, that is, a large share of the modest resources allocated for teacher training is utilized in sectors other than education (POLÓNYI, 2004). The main source of funding for teacher training is the per-student grant received from the central budget for education and maintenance. The regulations introduced in 1996 rewarded teacher training with supplementary per-student grants but the extra funding was abolished in 1998. The problem of under-funding training institutions has persisted with little change for years. Tight budgets force training institutions to give preference to cheaper forms of education: lectures given to large groups of students cost less than seminars held in small groups.

Tight budgets force training institutions to give preference to cheaper forms of education: lectures given to large groups of students cost less than seminars held in small groups.

There is an increasingly pressing need to introduce information technology into education at universities and colleges. Important services include securing digital access to course materials, developing modern distance-learning infrastructure and acquiring digital portfolio software for portfolio-based evaluation. Substantially more resources could be allocated for these developments if teacher training institutions applied stricter selection criteria and reduced the number of student places. This would allow institutions to increase their spending per teacher trainee. without an increase in state funding. This step is essential to the modernization of teacher training.

Spending per teacher trainee could be increased by reducing the number of student places.

Proposals that have been publicised suggest three sources for funding teacher training in the future. *1.* an establishment maintenance fund — which is distinct from the education fund — to finance the infrastructure needed for training; *2.* education subsidies to finance bachelor's and master's programmes.

## INTERNATIONAL EXPERIENCES OF MAKING TEACHING CAREERS MORE ATTRACTIVE

In countries with successful education programmes it is not tradition, culture or the prestige of teaching but culture-independent education policies that make teaching careers attractive to the very best of secondary school students (BARBER & MOURSHED, 2007). There are two measures that have a decisive impact on the prestige of the teaching profession: *1.* a careful selection from among applicants and high standards of training, and *2.* good starting salaries.

In Great Britain, for instance, 25 per cent of graduates seeking a career change choose teaching as their second career, making teaching a more popular choice than the media (14 per cent) or banking (11 per cent) (TDA, 2005). The Teach First programme, (http://www.teachfirst.org.uk), is addressed to top performing students in England; it offers mentor support and secure jobs to participants. The most gifted participants of the programme become part of the team of "Teach First Ambassadors" — authentic and attractive role models who raise the prestige of the teaching profession by their mere presence. Another British initiative, the Training and Development Agency for Schools (TDA, http://www.tda.gov.uk), emphasises three attractive aspects of a teaching career in its advertising campaign: making a living out of disseminating interesting knowledge among enthusiastic young people, meeting intellectual challenges on a daily basis, and having attractive career prospects.

In Singapore, marketing strategies were combined with a recruitment programme to enhance the prestige of teaching. People — the winners of the future — are sought to deliver an education programme which has become a modern and effective success sector and who will be paid as soon as they start training as an incentive. Both countries designed their campaigns based on human resource management experiences in the business sector; they were not put off by fears that solutions that work in business life would be alien to education (EURYDICE, 2002).

The Teacher Residency Program in Boston (http://www.bpe.org/btr) and the Teaching Fellows scheme in Chicago and New York (http://www.chicagoteachingfellows.org, https://www.nycteachingfellows.org) help to improve teacher quality by offering scholarships to people choosing teaching as their second career to ease the financial burden of switching careers. Trainees participating in the training programmes building on a partnership between teacher training institutions and school districts are guaranteed a teaching position even before they start their training.

Unfortunately, it may be necessary to reduce the per-student grant rate applying to three-year bachelor's programmes offered by academic universities to match the rate applying to colleges. *3.* The third source is a research or quality-based subsidy, which may benefit university-based teacher training but will not grant extra resources to nursery and primary school teacher training programmes mostly offered by colleges (POLÓNYI, 2004).

The above and other tasks related to the reform of teacher training may also be financed from the EU sources of the National Development Plan. In the winter of 2004–2005 the Ministry for Education announced a call for proposals related to the reform of teacher training within the framework of the first National Development Plan — as part of the Human Resources Development Operative Programme (HEFOP) — in an effort to support programmes helping

to renew the teacher training system as the regulations changed. In the second National Development Plan, the issue — now as an independent area — has been given high priority. Billions of Hungarian forints have been allocated to each of a number of subject-specific programmes set up to develop teaching curricula and textbooks and continuing professional development schemes, and a few teacher training institutions (or, more precisely, their education theory and psychology centres) have been given support to develop materials for teacher training. We hope that the second National Development Plan secures resources for handbooks, electronic course materials and — at the same time — for experiments on methods, which are ever more sorely needed to establish the scientific foundations of teacher training.

It must not be forgotten, however, that increased spending does not guarantee an improvement in outcomes. If programmes fail to be restructured and new approaches fail to get a foothold, the availability of more resources for teacher training will simply have the effect of conserving the current system under new financial conditions.

9. *Professional development.* The amendment of 1996 to the Public Education Act specifying a requirement for teachers to participate in professional development programmes, states that a qualifying examination must be passed to obtain a teaching position and secures the conditions of funding the system by declaring that three per cent of any education budget must be spent on in-service training for teachers. A government decree was published following the amendment regulating the conditions of funding and participation in professional development courses and accreditation procedures applying to advanced teacher development programmes.

Teacher development programmes have received considerable financial support in recent years and, as a result, an in-service training market has emerged. The first list of programmes on offer was published in 2000 with a wide range to choose from. As the market later saturated and less favourable funding conditions were introduced, a steady decrease in the number of new programmes followed. Close to 60 per cent of formally approved (accredited) professional development programmes are offered by institutions with a tradition of teacher training (higher education institutions and institutions providing pedagogical services).

Professional development programmes are currently financed and commissioned (i.e., their contents are decided) by the same body — essentially the government education authorities rather than research or teacher training institutions. These institutions can only hope to see their research results or experiences incorporated into the teacher development process if their staff undertake advanced trainer functions together with the necessary propaganda and organisation activities, which require considerable sacrifices considering the worsening funding conditions. Current accreditation criteria and funding conditions are not conducive to quality work. The training requirements ap-

Current accreditation criteria and funding conditions are not conducive to quality work.

plying to higher education institutions are unlikely to be successful in the unregulated market of professional development programmes.

However, while professional conditions and infrastructure are at least to some extent guaranteed by regular accreditation exercises at higher education institutions, there is no such control applying to small businesses dominating the in-service training market. The largest share (34.9 per cent) of the programmes licensed to be offered to students before the end of 2002 were proposed for accreditation by higher education institutions. Almost half of the programmes which are not officially approved to be offered have been founded by higher education institutions. 98.9 per cent of programmes accredited by higher education institutions, where the founders of the programmes correspond to the organisations offering them, have a one-time license to be run. One of the gravest problems is therefore structural: *continuing teacher training has been separated from the site of teacher training.*[10] A university instructor may find on-demand employment at a business good at exploiting market opportunities but he or she will probably need to part with the ethics and requirement system of the university when offering programme delivery rather than programme development services. In-service training — similarly to pre-service teacher training– displays decentralisation right to the level of individual training institutions. Course accreditation processes do not constitute quality assurance beyond the stage of planning — no data is gathered on how much of the proposed programme is in effect delivered. Self-respecting instructors doubtless teach effectively and seek to accommodate criticisms from participants, although there is no external force which encourages them to do so. Nevertheless, this several billion forint market deserves stronger and more transparent central control. (See the box *International initiatives in in-service training*.)

In evaluating Hungarian education (DAVIDSON, 2008), the OECD working group urges the introduction of strict quality assurance for professional development programmes, which will certainly not be quick or easy. *At present, quality assurance equals satisfaction questionnaires* — and the great majority of teachers participating in the programmes are genuinely satisfied. As an interview study reveals, mostly because the course successfully prepared the teacher for the duties that were "centrally" imposed, such as administrative and data supply tasks.

The outcome of research investigating the effects of professional development courses reveals that most participants cannot perceive perceptible im-

[10] An institution providing professional development programmes independently of higher education institutions — hiring their instructors as needed but avoiding organization level co-operation — may be very successful (such as the English BECTA in education information technology, http://www.becta.org.uk) or completely unsuccessful, such as the French Missions Académiques à la Formation du Personnel de l'Éducation Nationale (MAFPEN, http://www.bibliotheque.iffp-suisse.ch/Document.htm&numrec=031934546911630). The initial autonomy of these institutions was gradually restricted and their responsibilities were referred back to central authorities until they were finally closed down in 1998.

## INTERNATIONAL INITIATIVES IN IN-SERVICE TRAINING

Two different forms of in-service teacher development are practiced around the world: 1. continuing professional development, which is aimed at updating existing knowledge and skills, and 2. so-called additional programmes which offer new skills and qualifications. These opportunities do not involve a reduction in teacher responsibilities. In Austria, for instance, teacher development programmes were modernized between 1997 and 2000 but in 2001 working hours were given a broad interpretation, which had the consequence of increased responsibilities for teachers.

Based on the findings of research for a project investigating teachers' professional development in 1993 — with the participation of Germany, Ireland, Japan, Luxemburg, Sweden, Great Britain and the United States — the OECD Centre for Educational Research and Innovation established the following classification in connection with their objectives: (a) updating teachers' professional knowledge; (b) renewing individual skills, approaches and attitudes; (c) laying the foundations of successfully transferring knowledge and skills; (d) changing teaching strategies; (e) developing effective ways of sharing information between teachers and non-teachers; (f) enhancing teacher efficiency.

Between 1996 and 2002, at the peak of EU teacher training reform processes, the new educational paradigms had a strong impact on the contents of pre-service training but professional development programmes did not change to the same extent. However, guidelines to ensure minimum standards were met and to improve compatibility between pre-service and in-service programmes were regularly issued by central authorities and, in some countries, special centres were set up for this purpose.

In 2002, a central institution was set up in Greece to organise, co-ordinate and maintain full compatibility between different types of teacher training and institutions offering training. In-service professional development was made compulsory or strongly recommended in eleven countries: Belgium (in the German speaking community), Germany, Estonia, Greece (only for newly qualified teachers), Latvia, Hungary, Malta, Poland, Portugal, Finland and Romania. In Germany (where in-service training had been compulsory before) and the Netherlands in-service professional development was seen as a formal requirement in teaching. In French communities in Belgium teachers are required to attend six half-day professional development sessions as of 2002 (EURYDICE, 2002).

Professional development courses offered little help in managing conflicts between pupils and teachers, in developing a partnership with parents and in finding solutions to conflicts between members of staff.

provement in their teaching after completing the programme. Teachers at academic secondary schools attribute relatively less significance to the contribution of in-service training to their professional development while their colleagues at mixed profile schools (where they have to cope with a new education structure) attribute greater than average significance to it (NAGY, 2004*b*). In-service training programmes had above average success in core subjects, subject-specific methodology and remedial education. They unfortunately offered little help in managing conflicts between pupils and teachers, in developing a partnership with parents and in finding solutions to conflicts between members of staff (LISKÓ, 2004). As regards funding practices, the research reveals that education providers were more likely to support schools with inherently better conditions.

In-service training will be seen as successful if participating teachers really acquire the necessary competences and the only way for central authorities to

ensure this goal is achieved is to inspect participants' final projects. International certification courses, such as ECDL[11] and EPICT[12] in information technology, the latter specifically aimed at teachers, are exemplary initiatives, where qualifications conform to international standards. There can be no professional objections to introducing similar evaluation systems in courses aiming to improve competences or self-awareness, or to propagate co-operative learning.

The first master level teacher training programmes are due to start in 2009, when the first cycle of bachelor's programmes ends. The first teachers graduating from the new education system will join the teaching force in four or five years' time. A further 10–15 years will have to pass (that is 15–20 years from now, 2007), however, before teachers with modern training outnumber previous generations. It is evident that the current education reform characterized by the keyword of competence development cannot tolerate this delay. In-service teacher development programmes can play an important role in disseminating modern educational methods.

The private sector creates strong incentives for employees to participate in in-service training. Teachers, however, do not need to worry about being dismissed because of having obsolete knowledge since the great majority of them are employed on permanent contracts.[13] Also, successful completion of professional development programmes has no bearing on teachers' pay. What this means is that beyond individual ambitions and a modest bonus, the only way to create a practical incentive to in-service training is to make it compulsory. At present there is no way to assess teaching performance in Hungary or to take disciplinary measures against teachers no matter how unsatisfactory their work may be. That is, while teachers are required to complete 120 hours of in-service training every seven years, whether they incorporate their new skills and knowledge into their teaching is up to individual preferences.

In Hungary, there is no way to assess teaching performance or to take disciplinary measures against teachers no matter how unsatisfactory their work may be.

## ■ SUGGESTIONS

1. *An accountable, modern requirement system* is needed and a new professional profile should be created based on the assessment of teacher competences. Old policies and regulations with demonstrably detrimental effects should be subjected to revisions. Our recommendations are modelled on the strategies adopted in the countries that lead the PISA, IEA and SITES surveys and in countries which

[11] ECDL, European Computer Driving Licence. http://ecdl.org, http://www.ecdl.hu

[12] EPICT, European Pedagogical ICT Licence. www.epict.org, www.epict.hu

[13] "Hungarian teachers have fairly high job security by international comparison and compared to graduates employed in other sectors of the Hungarian economy, especially in competitive markets, as the majority of the large number of public sector employees are employed on permanent contracts. In 2004, 90 per cent of teachers were employed on permanent contracts" (NAGY & VARGA, 2006).

rank poorly in these surveys but have since implemented fundamental and successful reforms in response (France, Germany, Austria, Poland). The set of teacher training requirements recommended by the Strategic Working Group of the Education Division of the European Union are also taken into consideration.

2. *Accreditation procedures for teacher training institutions should be revised.* Whether this is done by a local or an international expert team, the publication-based evaluation of instructors' research activities and involvement in the international science scene must receive greater emphasis than it does at present. Teachers' teachers must set an example in knowledgeability and active participation in the work of international research communities. It is especially important to monitor performance following attainment of a Ph.D. degree and to evaluate research and development activities. Work on drafting a new set of accreditation conditions should be started without delay and the new, modern quality requirements should be adopted by institutions as soon as they are available. An *accreditation process that conforms to international standards* and is applicable to all teacher training institutions can fulfil an important function in improving training quality: it shows which institutions have excellent standards and which ones should be excluded from teacher training on a temporary or permanent basis.

3. The most pressing task is to *make the central documents detailing the requirements for master's programmes in teacher training compatible with programmes approved in Europe.* The 83 disciplinary areas of teacher training should be revised without delay and special areas not pertaining to foundational subjects should be moved to professional development programmes. It should be ensured that such Master's Programme proposals that have already been submitted will be accepted.[14]

4. The role of *researcher teacher* should be modelled on teaching careers in top PISA countries. If Hungary is to be part of the European educational space, local teachers must be empowered to evaluate their own work professionally and on a regular basis, and to innovate themselves or adapt successful education schemes to their needs. One of the main causes behind the decline in teacher quality or the increasing shortage of teachers observed in several countries is a worsening of pay conditions. The pay differential between teaching and non-teaching positions is a decisive factor in choosing a teaching career. Higher pay alone is not sufficient to make the career more attractive but it should be considered whether the current pay and support structure leaves room for self-improvement and in-service training. Scandinavian and German

[14] The — small — number of trainee teachers expected to be negatively affected by these accreditation delaying, measures can be simply estimated by looking at the number of trainees in their second year of bachelor's studies.

models demonstrate that a system of grants awarded for research and the development of course materials act as a strong incentive making both teaching careers and professional lifestyles more attractive. We therefore recommend setting up *a fund to reward researcher teachers* and establishing a scheme of *Ph.D. scholarships* to support Ph.D. level training in teaching methodology. It is impossible to carry out quality research and meet the requirements of Ph.D. qualifications while a candidate has to teach 24 classes a week.

5. *The contents, methods and funding schemes of the six-month practical training programme* should be launched without delay, in parallel with pilot schemes testing individual components of the new programme (as part of current practice teaching). Experts of education practice and education theory with thorough knowledge of recent research accomplishments in their subjects should be given substantially more responsibility as subject supervisors and advisors. We propose that an urgent decision be made on ways to fund this high-cost component of teacher training. Further tasks needing immediate attention are the selection of schools for participation in school placement schemes and the development and launching of mentor training programmes. In the long term, the financial needs of training will have to be reconsidered. It is essential to solve the problem of funding resident training and to grant 30 credits' worth of compensation to every teacher trainee. Another statutory matter of a financial nature is the status and funding of senior teachers (which should be spelled out in the Public Education Act).

6. *Professional development programmes for teachers should have stronger ties with the sites of teacher training.* We recommend regular inspection of the outcomes of in-service training programmes, primarily involving post-programme assessment of teacher competences that a given course intended to improve. This should be made among participants who successfully completed the course.

7. The OECD expert panel does not exclude the possibility of *pre-determining the number of places* in teaching careers in parallel with adopting the Bologna process (DAVIDSON, 2008) but this is held to be a viable process resulting from a rational, centrally induced policy of workforce size management rather than a direct consequence of adopting the Bologna process. The panel recommends giving more structure to admission procedures and in-course student assessment in order to curtail the overproduction of teachers typical of the current system and prevent large numbers of underskilled students and/or students who do not intend to follow a teaching career from starting and completing teacher training programmes. In agreement with these recommendations we propose that *the number of student places in teacher training should be limited and stricter admission procedures should be implemented.* Our suggestions concerning enhancing the prestige of the teaching profession and granting higher pay to new teachers are summarised in Chapter 10 of this volume.

### ■ LINKS TO OTHER PROGRAMMES

The reform of teacher training can benefit from the results of research in education studies initiated by the Education Round Table and the methodological experiences of programmes targeting young people with special educational needs or concerned with improving life prospects and integration. New findings related to educational assessment and evaluation can be directly incorporated into methodology courses and school placement programmes as well as into associated mentor training.

### ■ GAINS AND COSTS

The modernization of teacher training has led to a spectacular increase in student achievements in Scandinavian countries and some regions of the United States. The process of rationalizing teacher training involves a restructuring of training institutions (rather than increasing their number) and therefore does not need additional financial resources. Most institutions have poor infrastructure for teacher training, not even reaching the standards typical of an average secondary school. The second National Development Plan creates sources for investment but further regularly available sources corresponding to the "information technology quota" used in public education need to be secured. EU sources (such as the renewed Socrates programme) can contribute to Ph.D. and postdoctoral scholarship funds in financing study periods abroad but a substantial Hungarian contribution is also needed.

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# 9 The scientific foundations of teaching and learning

[Benő Csapó]

The public education realm is the primary location for acquiring knowledge but *learning* itself goes beyond the boundaries of formal education. The last century, especially its second half, was characterized by the rapid expansion of education: an increasing number of people attended school for an increasing length of time. All means of increasing the extent of formal schooling have, however, been exhausted in most developed countries. What remains in reserve for education development is to improve the efficiency of learning: students do not simply need to acquire more knowledge over the same interval of time spent at school but the knowledge acquired needs to be of much better quality, fully comprehended and ready to be applied more broadly. This objective — similarly to other areas of society and the economy — can only be achieved if the development process relies on scientific research.

The expansion of learning — in contrast with the expansion of formal education — has not yet reached its limits; on the contrary, it is in full flow and has transversed the boundaries of schooling in two directions. First, learning is for life: it is a central process in people's lives even prior to the start of formal schooling and it continues for an entire lifetime *(lifelong learning)*. Second, learning permeates every aspect of life; simple everyday activities, subsistence, communication and workplace duties all call for the acquisition of new knowledge *(life-wide learning)* and informal learning has an ever greater role. Establishing the scientific foundations for teaching and learning means understanding and developing this complex social knowledge-generating process through research.

While the education system is the most important sphere for regenerating knowledge on a social scale, the system itself makes very little use of new knowledge or new scientific discoveries in improving its own activities.

The deepest paradox in connection with the role of education in social development is that while the education system is the most important sphere for regenerating knowledge on a social scale, the system itself makes very little use of new knowledge or new scientific discoveries in improving its own activities. In short, education does not belong to the class of knowledge-intensive sectors. This paradox is repeatedly noted by international and national organisations and countries are urged to expand the scientific background of learning and instruction and to enhance research capacities. The call has led to a flow of spectacular developments in some countries while others — including Hungary — are only just beginning to recognise the problem.

In knowledge-intensive sectors development is driven by incoming knowledge and changes are based on scientific research and development activities.

A more than ten year old overview by the OECD found, for instance, that expenditure on research and development in relation to learning and instruction amounted to barely a few thousandths of the education budget in several countries (OECD, 1995). The public education system is the sector with the largest number of professionals with higher education degrees, which demands enormous financial resources, and yet it relies only to a very small extent on scientific evidence for professional development compared to other sectors. In some countries, research expenditure remained below a measurable level.

In placing the issue of research driven education development in a broader socio-economic context, it should be remembered that some countries spend almost 4 per cent of their GDP on research and development. This ratio is probably much higher in knowledge-intensive sectors.[1] That is, to turn education into a knowledge-intensive sector, an accelerated expansion of research capacity, improved infrastructure and researcher training are an essential prerequisite.

Countries achieving excellent results in recent international surveys contributed the same value to education research as they did to developing knowledge bases for other sectors.

An analysis of the relationship between knowledge, economy and education provides plenty of direct and indirect evidence demonstrating that enhancing research on education is one of the most profitable investments. Countries achieving excellent results in recent international surveys give further support to this view. Looking at development processes over the last few decades, it can be clearly established that these countries owe their rapid progress to the marked attention they paid to research and development in science and technology and, in a prominent position within that, to an attitude that contributed the same value to education research as was given to developing knowledge bases for other sectors. A development process thus emerged relying on pilot schemes and scientific evidence, which is the approach that, among others, OECD programmes are keen to propagate (SCHLEICHER, 2006).

## ■ DIAGNOSIS

1. *Research aimed at creating the scientific foundations of education development.* The first empirical educational research programmes of scientific value were launched towards the end of the 19th century. In Hungary, however, neither the period between the two World Wars, nor the years after World War II were characterized by social conditions conducive to research in the social sciences in general and even less so to empirical educational research in particular. It was only following World War II, however, that Hungary was

[1] Two extensive economic regions, the United States and Southeast Asia, with which the European Union should keep pace, persistently spend over 3 per cent of GDP on research and development. This value is one of the targets of the Lisbon strategy, set to be attained by 2010 (which is now known to be beyond hope). While some countries now spend as much as 4 per cent, the corresponding value remains under 1 per cent in Hungary.

quickly left behind by other countries where — mostly following the lead of the United States — a dynamic methodological development process was set in progress. In Central and Eastern Europe, in contrast, the development of social sciences came up against ideological barriers. In Hungary, organized, systematic empirical education research only emerged in the 1970s. Following a decision concerning education policy made in 1972, Research Directive No. 6 was launched in the middle of the decade, which was succeeded by a programme entitled 'Public Education Research' in the 1980s. Comparatively ample resources for that time were allocated for the project and distributed to researchers through a competition-based funding system modelled on Western research grant schemes. The research budget of about 20 million Hungarian forints, which was an exceptionally large sum in terms of contemporary purchasing power, "disappeared" at the time of the regime change, then reappeared in the 1990s as a fund of 50 million forints, which was worth significantly less (and was distributed with the help of the Education Committee of the Hungarian Academy of Science), before disappearing once again.

The present position of *educational sciences*[2] meant to provide the foundations of education development is equally problematic in comparison to its earlier position, to other fields of science and to the position of the same discipline observed in other countries. Educational sciences have no dedicated research funds, no university research teams specializing in empirical studies and very few qualified researchers. There are limited opportunities for disseminating research findings and quality professional journals are facing the threat of closure. The annual National Conference in Education Studies launched in 2001 is the only peer-reviewed academic conference in Hungary that accommodates the entire spectrum of education sciences and provides a regular forum for the presentation of research findings. The conference does not have stable sources of funding with the organizers struggling to raise funds year after year.

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Educational sciences were, until very recently, classed together with the humanities. Their institutional framework and research funding conditions are still typically shaped by mechanisms belonging to the humanities. This tradition does not cater for the financial needs of research, the accommodation requirements for equipment and assistant staff needed for empirical research or the maintenance of computer infrastructure essential for data analysis. Education departments are typically small relative to their teaching load, they have low prestige, their development has a very low priority in their host institutions, and the task of building the infrastructure needed for empirical research is hampered by sceptical attitudes as well as financial barriers. It is difficult to make a reliable assessment of research conditions as the available statistical data are inconclusive. In accordance with an earlier government decree — since amended, — the Hungarian Statistical Office uses the category of "educational

[2] The term is used here in a broad sense encompassing a wide range of research subjects, some extending to the boundaries of psychology, sociology, economics or a series of other disciplines.

and sport sciences" to record the amount of financial support given to the field as well as the details of the research infrastructure, human resources (number of researchers, share of researchers with Ph.D. or equivalent qualifications) and the research outcomes (number of publications).

Since empirical research requires substantial resources and because at several higher education institutions instructors working in teacher education departments are under considerable pressure to obtain advanced academic qualifications, a major share of Ph.D. dissertations and higher doctorate works focus on less cost-intensive subjects, and studies relying on empirical investigations of learning and instruction are less widely represented. Few young researchers studying for their Ph.D. degrees are prepared to master the details of statistics and research methodology needed for empirical social science research.

There are two contexts in which the relative weaknesses of the scientific background of education can be shown. First, we can look at its context within the country to reveal how the scientific background of education compares to that of other sectors and second, we can compare Hungarian conditions to conditions observed in other countries. In what follows, the discussion of a within-country comparison will be restricted to an overview of possible approaches, which will be followed by the description of a few initiatives which can be seen as country models.

Three sectors are worth considering in a within-country comparison: agriculture, medicine and education. Their positions allow analogous analyses in the sense that all three are under the control of a government department and the relevant ministries have substantial funds at their disposal. Each of the three sectors is tied to an applied science that relies on the research findings of several different disciplines: agricultural science, medical science and educational sciences. There are, however, enormous differences between the three fields in terms of their funding, human resources, and institutional and infrastructural conditions — with education lagging behind the other two.

Focusing on only general features without entering into any detail, it is worth mentioning a few figures as an illustration of the problems. Agriculture is supported by wide-ranging background research and an extensive institutional network and infrastructure. The team of development experts and senior researchers with advanced academic qualifications employed in agriculture far exceeds in size the research workforce in education. These facts unequivocally suggest that in present day Hungary agriculture is a much more knowledge-intensive sector than education. Since agriculture is a productive, market-oriented industry, it cannot be compared to education in every respect. The parallel between medicine and education is easier to interpret, and proposals for development in instruction and, especially, in teacher training often put forward medical science and medical training as positive examples (see, for instance, DARLING, HAMMOND & BRANSFORD, 2005). The country needs about three times as many teachers as doctors. With these proportions taken into consideration, we find that there are at least 15 times as many researchers with Ph.D. degrees to

every ten thousand medical doctors as there are to the same number of teachers. Looking at researchers with Doctor of Sciences (a degree awarded by the Hungarian Academy of Sciences), the corresponding ratio is 30 to 1 and in terms of papers published in journals abroad we find a ratio of 120–150 to 1.[3] A related observation is that there are only four research universities offering medical training, while teacher education is much more fragmented, it is distributed across more than thirty institutions. The research university model — where training is coupled with research and development, and where the knowledge base of education is continually recreated — could also be adopted.[4]

Research and scientifically based training capacity is constrained to such an extent that the sector is scarcely capable of exploiting opportunities – such as EU support – that offer themselves. The available grants are typically not large enough to finance large-scale empirical studies.

It follows that the education development process is backed by very limited research or scientifically based training capacity in comparison to the weight of the tasks awaiting fulfilment. This capacity is constrained to such an extent that the sector is scarcely capable of exploiting opportunities that offer themselves, such as absorbing EU support. Sources of funding research in education sciences include the Hungarian Scientific Research Fund (OTKA), grants of the Hungarian Academy of Sciences and other research and development funds. The available grants, however, are typically not large enough to finance large-scale empirical studies.

2. *The gap between Hungary and other countries — successful programmes abroad*. The problems of educational research in Hungary are aptly illustrated through a comparison with other countries: while other countries have launched impressive development programmes expanding research capacities, the past twenty years in Hungary have been essentially characterized by stagnation even though international initiatives could have been used as models for the modernization of research in educational sciences. Once the weaknesses of their education system had become apparent and the connection between education and knowledge economy had been recognized, a notable group of these countries set out to improve academic background activities, institutional infrastructure and human resources at a fast pace. In these countries — while outcomes may not yet be measurable — research on learning and instruction is now one of the most dynamically developing fields in empirical social sciences.

Some countries set out to improve scientific background activities, institutional infrastructure and human resources at a fast pace. In these countries, research on teaching and learning is now one the most dynamically developing fields in empirical social sciences.

The weaknesses of the American education system have been recognised for decades. The problem has also been documented by international comparative studies. In the 1970s and 1980s American pupils displayed one of the poorest performance ratings in mathematics and science. Large differences observed between different ethnic groups and social groups presented an enormous problem. Students dropped out of school prematurely. Thanks to sustained efforts, in which scientific findings played an increasingly significant role, American

[3] The precise ratios cannot be calculated because, as was mentioned previously, educational sciences and sport sciences are merged in the statistical database. The estimates given here take the combined figures of the two fields; the actual situation is — to an unknown extent — worse than that.

[4] See also Chapter 8 of this volume and CSAPÓ (2003, 2004, 2007, 2008).

pupils advanced to somewhere around the middle of the range by the end of the millennium. Although empirical research in educational sciences has always had a tradition of high standards at American universities, the practical application of research findings and the task of advancing teacher education had proved to be a challenge and the process is still not, even today, free from contradictions. The *No Child Left Behind* Act of 2001 specifically emphasizes the need for scientific foundations and evidence-based methods in education. In addition to new institutions of educational research and an increase in allocated resources, the Act has also given rise to a reinterpretation of scientifically based educational research (CSAPÓ, 2003, 2004). As the Act contains several references to the requirement of a scientific basis, and federal funds of millions of dollars are allocated every year to researchers and for the dissemination of evidence-based methods, educational research is also regulated by law. The requirements drawn up by a committee of the National Academies call upon researchers in educational sciences to adhere to the research standards of the natural sciences and especially those of engineering and medical sciences (FEUER, TOWNE & SHAVELSON, 2002; SHAVELSON & TOWNE, 2003). Efforts to improve reading education are especially noteworthy, such as the formation of the *National Reading Panel*[5], reflecting broad-ranging academic collaboration.

Europe's largest national educational research programme organized in a uniform structure across the board has been launched in Great Britain. The *Teaching and Learning Research Programme*[6] relies on a synergy between a wide range of academic disciplines and extends to all major aspects of teaching and learning. It encompasses seventy major projects grouped into twenty subject categories, which engage more than 700 researchers. By the summer of 2007 its budget reached 43 million pounds. Its declared aims include developing capacity for research and improving relations between researchers, practitioners and policy makers. The co-ordination office of the programme has been involved in co-ordinating similar national educational research programmes in other countries.

Germany has experienced both education and research problems which are in several respects similar to those observed in Hungary. The selective education system of Germany, which funnelled pupils to different types of school at an early stage of education, created similar tensions to those caused by the more or less covert, spontaneous practice of selection characteristic of Hungary. The development of empirical control was hampered by a pronounced humanistic, philosophical approach to social sciences. Warning signals communicated by researchers were suppressed by the wide public support for the school system. Thus, German society was literally shaken by the results of the PISA surveys and the PISA-shock engendered a truly broad ranging social, professional and education policy debate. It was being put to the test in an international context

[5] The National Reading Panel website: http://www.nationalreadingpanel.org.
[6] The Teaching and Learning Research Programme website can be found at http://www.tlrp.org.

that gave the final impetus to the long-simmering all-inclusive changes. The reforms focus on creating the scientific foundations of education and putting research findings to wider use. Germany had accommodated prominent, internationally acclaimed research centres before, such as the Max Planck Institut[7] in Berlin and the Leibniz-Institut für die Pädagogik der Naturwissenschaften[8] (IPN, Leibniz Institute for Science Education) at the University of Kiel. A further institution was established in 2004 at the Humboldt University of Berlin, the Institut zur Qualitätsentwicklung im Bildungswesen[9] (IQB, Institute for Education Progress), which is charged with specifying educational standards and developing an assessment system ensuring that these standards are observed. Existing research institutes[10] have been given new profiles and new, empirically oriented university departments and research centres have also been set up with the same objectives in mind.

In Finland, educational research entered into a rapid stage of development in the late 1970s. This is partly credited to the fact that the most gifted members of the then young generation of researchers were sent to prominent research centres around the world as visiting scholars and at a later stage their students received support enabling them to obtain their Ph.D. degrees abroad. Research and development centres were set up at universities and, as a next step, strong links were established between research and teacher training. Notable examples include the two fairly large research centres mainly specializing in educational assessment which conducted the PISA surveys in Finland. The Institute for Educational Research[11] is affiliated to the University of Jyväskylä and the Centre for Educational Assessment[12] is part of the University of Helsinki. With respect to the issue of enhanced financial support for research on learning and instruction and the responsibilities of a science academy, the complex research programme entitled *Life as Learning* launched by the Academy of Finland constitutes a good example. The programme had a budget of 5.1 million Euros for 2002–2006. Funds were allocated on the basis of English language proposals which were evaluated by an international panel. Research results were regularly presented at international conferences. The priorities of evaluation included partnership with schools, training young researchers and expanding research staff (CSAPÓ, CSÍKOS & KOROM, 2004).

Looking at the known weaknesses of the Hungarian public education system and at international trends allows us to identify the major areas of research and development with the greatest need for capacity development. Important decisions now tend to be made on the basis of tradition, without the support of scientific evidence.

An observation of the known weaknesses of the Hungarian public education system and of international trends allows us to identify the major areas of research and development with the greatest need for capacity development in

[7] The MPI Berlin website: http://www.mpib-berlin.mpg.de/en/forschung/eub/index.htm
[8] The IPN website: http://www.ipn.uni-kiel.de/institut_eng.html
[9] The IQB website: http://www.iqb.hu-berlin.de
[10] The Deutsches Institut für Internationale Pädagogische Forschung in Frankfurt, for instance, has abandoned its old profile of traditional, descriptive comparative educational research to become one of the leading centres of empirical research.
[11] The website of the Institute: http://ktl.jyu.fi/ktl/english
[12] The website of the Centre: http://www.helsinki.fi/cea/english/kenentehtava/eng_kansalliset.htm

Hungary. The areas in question are those that have a decisive influence on the efficiency of the education system, but where important decisions are made on the basis of tradition or subjective opinion without the support of scientific evidence and where it has been shown by the experiences of other countries that research matters and research findings can be put to good use.

3. *Research based development of programmes, curricula and instructional materials*. The significance of early child development and possibilities for its facilitation are demonstrated by a range of studies. The development of the brain/nervous system, emotions, language and numerical skills has an especially rich literature. Further extensive research is needed, however, to identify ways of transferring research results into school practices and to develop early childhood programmes, especially in the area of compensating for developmental delays and social disadvantages.

Developing new classroom methods and "calibrating" their effects can advance the renewal of educational culture.

It is above all the development of new classroom methods and the "calibration" of their effects that can advance the renewal of educational culture. First of all, methods that reach beyond teacher centred large group work and enhance understanding, application, skill development and motivation need to be developed. A broader repertory of differentiated instructional methods and demonstrably efficient education procedures is also required to allow integration and the co-education of heterogeneous groups of pupils, which, from several points of view, is a desirable goal.

Hardly any funds are available to investigate the efficiency of teaching materials and give scientific support to development. More than ten different series of course books are used to teach reading but they have never been subjected to research in order to test and compare their efficiency.

Textbook publishing and the development of digital, multimedia instructional materials are a multi-billion forint business. Compared to that, vanishingly small funds are available to investigate the efficiency of teaching materials and give scientific support to development. This area is, moreover, characterized by egregious squandering. More than ten different series of course books are available for reading instruction, for instance, but they have never been subjected to research in order to test and compare their efficiency. The development of multimedia tools is mainly dependent on technological circumstances rather than on scientific findings in relation to instruction or on considerations of developmental psychology or education theory.

At present curriculum development is shaped by opinions, traditions and debates between ideological, political or professional interest groups. It is a century old objective of researchers and education reformers to create curricula attuned to child development. In recent decades, research in instructional sciences has generated a great body of information needed for research based curriculum development, preparing the ground for a shift from contents-centred curriculum design to child-centred design. One of the main trends in curriculum development focuses on skills and abilities. It aims to structure education around a "thinking curriculum."[13] Similarly important tasks include a detailed

[13] New approaches to skills development and associated experimental work are discussed by Mrs. NAGY (2000, 2006), for instance.

investigation of pupils' conceptual development, an examination of conceptual change and the developing of curricula in harmony with the results. In Hungary, however, these questions have only just emerged as issues for in-depth research and ongoing projects do not cover all ages from the beginning to the end of schooling, nor do they extend to all domains of knowledge.[14]

Comprehensive competence assessments (in grades 4, 6, 8 and 10) are exceptionally important. However, there are no resources for generating the professional knowledge needed to interpret the results and, as a consequence, this body of data has little practical benefit.

4. *Educational assessment and quality encouragement*. It is a wide-ranging research and development task to establish the scientific foundations of educational assessment. The recently introduced comprehensive national competence assessments (in school years 4, 6, 8 and 10) are very important both for education policy and in assisting instruction. No resources have been allocated, however, for generating the professional knowledge needed to interpret the results and, as a consequence, this potentially very useful body of data has comparatively little impact on education. To advance public education, the assessments costing several hundred million Hungarian forints must be based on the findings of systematic research activities, and scientific methods must be used to interpret the results and draw conclusions. In addition to data on family and environmental background variables currently gathered on a regular basis, affective variables (motivation, self-concept, attitudes, future expectations, attributions, etc.) should also be examined on smaller sub-samples. One of the most interesting analyses of the PISA survey of 2000, for instance, was a study based on the results of research on self-regulated learning, which revealed several interesting patterns in pupils' learning strategies, habits and attitudes to learning (ARTELT, BAUMERT, MCEVANY & PESCHAR, 2003).

Although in Hungary — similarly to other countries — assessment and evaluation is at the forefront of empirical educational research, its theoretical foundations offer further potential for development. It is an important research task, mostly of practical applicability, to introduce further functional differentiation into the assessment of different age groups. Various diagnostic and screening functions at the start of compulsory schooling could be further improved to enhance their development and criterion-referenced nature.[15] This could assist the early recognition of problems and the use of appropriate therapeutic procedures and differentiated instructional methods, which could in turn reduce the odds of pupils dropping out of school.

The introduction of the new two-tier school leaving examination *(Matura)* system of standard vs. advanced level examinations was not preceded by preparatory work of establishing and setting benchmarks, or by a sufficiently detailed analysis of the expected effects and side effects of the system. The new examination system therefore gave rise to several problems. The two-tier

[14] For a discussion of relevant research in Hungary see, for instance, KOROM (2000, 2002, 2005).
[15] A widely used instrument of this type is the Hungarian test package DIFER (Diagnostic Development Assessment System — see NAGY, JÓZSA, VIDÁKOVICH & FAZEKAS, 2002, 2004).

structure is not in harmony with the reform process: it (inappropriately) calls for an early decision just when the multi-level higher education system has finally deferred the decision on education level to a later stage. The knowledge conception underlying the examination has not been elaborated on a scientific basis, the relationship between the two tiers has not been defined, item banks needed for technical delivery have not been developed and test items have not been calibrated. Item response theory allows for the expression of the current two examination levels on a single scale.

International surveys offer good opportunities for the external evaluation of the efficiency of the education system as a whole. Hungary participates in a number of major assessment programmes (PISA, TIMSS, PIRLS, etc.).[16] The four yearly TIMSS (see, for instance, MULLIS, MARTIN, GONZALEZ & CHROSTOWSKI, 2004) focuses on curriculum-related knowledge while the OECD's three yearly PISA survey (OECD, 2000*a*, 2000*b*, 2001, 2003, 2004*a*, 2004*b*) assesses the applicability of knowledge outside the school and its utility in society. The potentials of these surveys, similarly to those of local national surveys, are left unexploited. Concentrating staggering mental capacity, the PISA surveys reveal the positive and negative aspects of individual education systems and thus suggest directions for future development. The analyses produced on the basis of the results, however, have a far weaker impact in Hungary than would be necessary. Synthesised analyses relying on the results of international assessments are regularly produced in other countries (see, for instance, HAAHR, NIELSEN, HANSEN & JAKOBSEN, 2005).

International surveys offer good opportunities for the external evaluation of efficiency. Their potentials, similarly to those of local national surveys, are left unexploited. Synthesised analyses relying on the results of international assessments are regularly produced in other countries.

In Hungary, not even university libraries stock copies of the original editions of the summary reports (several dozens of volumes). Although it is possible to download the complete databases from the internet, most researchers do not have the skills or capacity to use and analyze the data. The few researchers who possess the necessary skills to cope with analysis tasks of this complexity cannot be burdened with this work in addition to their regular duties and, moreover, there are no channels through which thorough analyses could be transferred to development programmes. Once again, the solution lies in following the lead of countries that invest at least as much in the locally relevant analysis and practical exploitation of results as they do in administering the surveys themselves. In the long term, it should also be our objective to empower Hungarian researchers to contribute to the scientific foundations of international surveys.

Hungary should follow the lead of countries that invest at least as much in the locally relevant analysis and practical exploitation of results as they do in administering the surveys themselves.

The primary aim of diagnostic assessment (VIDÁKOVICH, 2001) is to monitor and facilitate learners' progress, to allow problems to be recognized in good time for each individual and to identify appropriate complementary activities. One such programme in Hungary is the DIFER package (Diagnostic Develop-

[16] PISA: *Programme for International Student Assessment*; TIMSS: *Trends in International Mathematics and Science Study*; PIRLS: *Progress in International Reading Literacy Study.*

ment Assessment System), which is available at every primary school (see NAGY, JÓZSA, VIDÁKOVICH & FAZEKAS, 2002, 2004).

An increasingly important role is assigned to assessing the efficiency of instruction. This can be done by means of comprehensive national surveys that provide comparable assessments of the knowledge and progress of pupils at different schools. A system of annual assessment procedures is currently under implementation in Hungary. The conception behind the system is to supply data of appropriate quality that can be aggregated to compute indicators characterizing the efficiency of instruction. At present, however, no scientifically sound methods have been found for the task and the development of models providing a framework for computations requires extensive research. (See Chapter 7 on assessment and evaluation for details.)

Info-communication technology radically transforms education and brings large-scale improvement in the accessibility of knowledge and in the quality and applicability of the knowledge acquired.

5. *Knowledge rich learning environment*. Educational culture can now be fundamentally transformed thanks to information and communications technology and new electronic instructional materials (see, for instance, KÁRPÁTI, 2001). It must be remembered, however, that these tools will not provide a solution to problems by themselves and the unique opportunities offered by the availability of multimedia methods frequently remain unexploited. There can be no doubt today that info-communication technology radically transforms education and brings large-scale improvement in the accessibility of knowledge, and in the quality and applicability of the knowledge acquired. It should also be recognized, however, that the fast pace of development has the consequence that users cannot always keep up with the opportunities on offer. Info-communication often offers first-rate solutions to second-rate problems.

If info-communication is not used with sufficient responsibility, the changes may lead to the fragmentation of knowledge. There is an increase in "noise," irrelevant, misleading or false knowledge reaches learners just as readily as valid, useful knowledge.

If the spread of information and communication technology is allowed to be a spontaneous process, groups or schools better prepared to stand up for their interests may gain a significant advantage, which leads to an increase in inequalities between schools — to the emergence and widening of a digital divide. If info-communication technology is not used with sufficient responsibility, the changes may lead to the fragmentation of knowledge. There is an increase in "noise" — irrelevant, misleading or false knowledge reaches learners just as easily as does valid, useful knowledge. It is a well known phenomenon that formal education may "duplicate" the world: to the body of realistic, experience-based and real-life knowledge, a level of abstract school-based knowledge, distanced from reality, may be added. If development is not rooted in scientific research and effects analysis, there is a danger of info-communication giving rise to a third world by transmitting knowledge which is only valid in the "virtual world" and has little connection with "real life" knowledge.

Nevertheless, the use of info-communication technology offers richer opportunities and perspectives in the development of education than any other educational tool has done before. Communications networks offer partnerships for work and novel ways of interaction between learners and teachers and between individual learners. Multimedia allows knowledge to be represented in

If used and distributed appropriately, info-communication technology can also be a suitable means of compensating for social disadvantages.

new ways, which, in addition to aiding comprehension, enhances motivation. If used and distributed appropriately, info-communication technology can also be a suitable means of compensating for social disadvantages (see, for instance, KÁRPÁTI & MOLNÁR, 2004). Educational computer software can be an excellent tool in individualization efforts, in delivering personalized education adjusted to individual learning speeds. Educational computer programmes aiding knowledge integration and comprehension have especially great potential.

6. *Scientifically based teacher education*. The first large wave of modernization in teacher education took place in the second half of the 20th century. The objectives of the time centred around the notion of professionalization in teaching. Thanks to this approach, the process of organising knowledge needed for success in the teaching profession and, as appropriate, of setting up targeted research programmes was greatly accelerated. It became clear that teaching experience alone is not sufficient as a teachers' knowledge base. In the absence of appropriate theoretical frameworks and scientific foundations experience alone cannot give rise to widely applicable and valid knowledge; it may, instead, lead to erroneous generalizations and the emergence of naive models. This is especially true in situations where the requirements of a given profession change very rapidly. Where this is the case, the experiences of the previous generation largely lose their validity. The role of new generations entering the profession may be the most significant factor in renewal. It was this argument that prompted Western countries to enhance the scientific foundations of teacher education and to improve the integration of theoretical and practical training.

In the absence of appropriate theoretical frameworks and scientific foundations experience alone cannot give rise to widely applicable and valid knowledge; it may instead lead to erroneous generalizations and the emergence of naive models.

Research-based teacher education needs to empower teachers to interpret, grasp and apply scientific findings without mediation and even to conduct independent educational research themselves.

New directions in teacher education go even further in plans to build a knowledge base of teaching. Research-based teacher education now aspires to empower teachers to interpret, grasp and apply scientific findings without mediation and even to conduct independent educational research themselves.This approach is most clearly represented by the Finnish *research-based teacher education system*, which has a history of almost two decades and which is one of the key components of the famously successful Finnish education system (NIEMI & JAKKU-SIHVONEN, 2005; JAKKU-SIHVONEN & NIEMI, 2006). This has its roots in the observation that research on learning and instruction produces new results at such a pace and in such quantities that it has become impossible to disseminate those findings through traditional procedures of interpretation and incorporate them into school subjects.

7. *Education policy based on scientific evidence*. As a result of a few, generally speaking, independent processes, efforts to rely on scientific evidence in making education policies have been intensified in recent years. Firstly, educational research is developing at a fast pace and thus education policy makers have access to a growing body of evidence that can be used in making decisions. Secondly, the requirement of accountability now applies to government adminis-

tration, including the administration of education and health services, the great social service programmes. Thirdly, the results of international assessment programmes (IEA, PISA) have opened the way to systemic analyses that have brought the weaknesses of the education systems of individual countries to the surface while also providing information on how other countries avoid similar problems, which is of direct use to education policy.[17] Scientifically based education policy relies on evidence provided by research — this is reflected by the term *evidence-based education policy* used in literature on the subject.

Several countries and international organizations are making special efforts to expand research capacities in order to allow education policies to be based on scientific evidence.

Evidence-based education policy is gaining more and more ground. Several countries and international organizations are making special efforts to expand research capacities in a way that allows education policies to be based on scientific evidence. In an effort to propagate evidence-based education policies, the OECD organized a series of international conferences. (The conferences were hosted by Washington,[18] 2004; Stockholm, 2005; The Hague,[19] 2005; and London,[20] 2006.) The studies[21] revealed substantial differences between the countries in this area as well.

Government education departments in some countries (e.g., in Great Britain), employ trained researchers, or "knowledge brokers" to use their research expertise to provide continuous analyses of current or expected problems in education and to identify solutions to these problems which are proven or inferred to be effective based on the relevant literature. In some cases research is commissioned to find scientific evidence relevant to a policy decision. Countries receptive to the OECD's recommendations have already begun to implement them. Germany is one these countries. In fact, Germany included the propagation of evidence-based education policy among the main programmes of the German EU presidency. Evidence-based education policies have also emerged in Hungary.

## ■ SUGGESTIONS

The most important lesson learnt from international experiences is that intensive efforts are needed to achieve a breakthrough; minor adjustments, not even comparable to the gravity of the problem, cannot lead to success in this area. First of all, adequate funds need to be established. The task calls for billions of Hungarian forints, which in the context of current conditions seems to be

[17] The term education policy is used here in a strategic sense and covers school and maintainer level policies as well as national policies.
[18] Website: http://coexgov.securesites.net/index.php?keyword=a433923e816991
[19] Website: http://www.oecd-conferences-ocw.nl/ebpr-conference/index.html
[20] Website: http://www.oecd.org/document/24/0,2340,en_2649_35845581_36810776_1_1_1_1,00.html
[21] The results of the analyses have been published in a volume: OECD (2007).

Adequate funds are needed and reliable long-term grants distributed through a competitive grant system. Requirements can be modelled on frameworks developed in natural and engineering sciences and on itemized foreign benchmarks.

a large sum but, in actual fact, constitutes only a few thousandths of the total public education budget. Resources should be distributed through a competitive grant system and should be granted to successful applicants undertaking long-term projects that may lead to publications of an international standard. Requirements can be modelled on frameworks developed in natural and engineering sciences, other social sciences or on itemized international or foreign benchmarks.

A further feature of foreign models that can be adopted is that other disciplines may be invited to take part in research programmes, to bring their own approaches and from time to time enrich education sciences with their well-established "harder" research methods. In this respect a fairly broad spectrum of disciplines could be useful, since research on learning and instruction could benefit from the experiences of neuroscience, cognitive neuro-psychology, cognitive science in general, psychology, sociology, economics, informatics and several other fields.

Instructional Science Research Fund

1. The key step to a solution is to set up an *Instructional Science Research Fund* exclusively dedicated to funding research on teaching and learning. This step has been taken by several countries. The fund should conform to international standards and should be set up in international collaboration. Satisfying the knowledge requirements of education calls for adherence to the principles of competition-based research funding, which is now common practice in Hungary, together with the introduction of several additional conditions and requirements.

Research universities

2. Provision for *research universities* in the field of educational research. There should be support for research groups at institutions offering Ph.D. training and master's training. The Higher Education Act contains references to that effect.

Large-scale long-term projects

3. Scattered minor initiatives should be replaced by relatively *large-scale long-term projects* (a good example is the British *Teaching and Learning Research Programme* and the Finnish *Life as Learning* project). A programme of four to six years' duration with at least three to five researchers working on the programme is the minimum needed to begin making a difference.

Ph.D. students, postdoctoral fellows

4. Supported programmes should specifically seek to expand research capacity. Provision should therefore be made for a substantial share of research duties to be fulfilled by *Ph.D. students and postdoctoral fellows*.

Foreign researchers

5. Channels should be created for international knowledge transfer. Research groups should be able to invite *foreign researchers* and research group members should be given the opportunity to participate in the work of research groups abroad.

Involve teachers in projects.

6. Research groups should maintain *long-term collaboration with a sufficiently large number of schools*, keep their partners up to date on the progress of their research and involve teachers in their projects.

7. Research group members should contribute to pre-service and in-service teacher education. This allows their valid research findings to permeate instructional practices with the shortest possible delay.

8. Educational development and services requiring a research base (e.g., curriculum development, establishing benchmarks, developing instructional materials, assessment and evaluation) should be gradually transferred to successful, *internationally acclaimed research groups*.

## ■ COSTS, TIMING

Since at present the funds allocated for educational research are almost negligibly small, even moderate financial support can lead to a multiplication of scientifically based evidence if used efficiently. The annual budget for education is of the order of a thousand billion Hungarian forints; research expenditure, as shown by official figures, accounts for about 0.2 per cent. An increase of just a further 0.2 per cent could allow the objectives discussed above to be realized within the next decade. That is, merely 2–2.5 billion forints would be needed — the cost of a few miles of motorway — to set the education system on course to become a knowledge-intensive sector.

The New Hungary Development Plan pumps substantial funds into education system development programmes, which include some research components. Thanks to these initiatives, significant research and development projects will be launched over the next few years. This in itself does not guarantee, however, that the kind of human resource and infrastructural development proposed above will indeed take place. Steps must therefore be taken to ensure that programmes lead to lasting changes. Care must also be taken to keep development processes sustainable.

To achieve this aim, a bill to set up the Instructional Science Research Fund proposed above should be enacted as soon as possible. The initially moderate financial resources needed to provide for the Fund should be incorporated into the budget. The first step should be taken as early as 2009, with 0.05 per cent of the education budget allocated to the Fund. This should be followed by an annual increase of 0.05 per cent leading to an expenditure of 0.2 per cent by the end of the Social Renewal Operational Programme (TÁMOP) of the Development Plan (0.1 per cent in 2010, 0.15 per cent in 2011 and 0.2 per cent in 2012). After this period, an annual growth rate of 15–20 per cent is reasonable to expect as research capacity gradually expands until the total R&D expendi-

ture of the sector attains 1 per cent of the gross education budget. These sums are negligible relative to the total central budget but they are of decisive significance for the future of education.

## ■ LINKS TO OTHER PROGRAMMES

The task of enhancing the scientific foundations of education is connected to several other development programmes. The implementation of any proposed change should be preceded by a scientifically conducted feasibility study and efficiency analysis. Research is most closely tied to training, in our case to the training of researchers (Ph.D.), and education experts (master's level and specialized professional development) and to pre-service and in-service teacher training. These are the training channels through which research-based knowledge can be introduced into the public education system. If there is an absence of good quality scientific research, there can be no new knowledge to teach.

## ■ EXPECTED GAINS

Education can be set on course to become a knowledge-intensive sector by enhancing scientific capacities. In the short term, this will slow down the growth of the gap between Hungary and the developed countries. In the medium term, the gap can be stabilized and in the long term Hungary can start approaching the level of the developed world. Research should above all be targeted at solving problems, including providing assistance for the education of children of families in disadvantaged social positions, reducing the incidence of children dropping out of school and improving the quality of students' knowledge when they finally leave school.

## ■ RISKS AND SIDE EFFECTS, INTERESTS, CONFLICTS

The measures proposed here are not accompanied by any serious risks or side effects. They will primarily benefit young gifted researchers who are thus given more professional opportunities (they are unfortunately rather few in number). Enhancing the efficiency of education finances and the introduction of a stricter control of productivity will presumably not encounter objections from major social groups. It might, at most, cause displeasure for those who cannot have access to the new research funds.

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# 10 Institutional structure and funding in education

[Júlia Varga]

The current institutional structure and funding system leave very little room for provisions to be made for high quality teaching or for complementary education for pupils from disadvantaged backgrounds.

The current institutional structure of education and its system of funding leave very little room for provisions to be made for high quality teaching or for complementary education in support of pupils from disadvantaged backgrounds. In some cases even basic services are barely covered by available resources.[1] The exceedingly fragmented system of school management by local authorities — in combination with the institution of free school choice — constitutes a barrier to enforcing consistent equality of educational opportunity policies, to delivering appropriately oriented quality assurance and accountability programmes and to providing institutional guarantees that schools educating children in greatest need can have access to high quality educational services. A reform of the institutional structure and funding system of public education appears to be a prerequisite to maintaining long-term high standards in education services for pupils from disadvantaged backgrounds, if we are to avoid further heavy burden on the central budget. Also, institutional changes are needed to put an end to negative selection processes observed among teaching staff, to ensure that schools — specifically those attended by a large proportion of disadvantaged pupils — are in a position to employ and retain well-trained teachers. A more general factor unequivocally calling for institutional restructuring is that Hungarian public education is hampered by serious problems of cost efficiency. In the absence of an appropriate general restructuring, direct solutions to these problems — downsizing surplus teacher workforce, merging or closing schools failing to achieve economies of scale — could easily have the effect of increasing disparities in quality, with the result that disadvantaged pupils are offered even less adequate services.

Institutional changes are needed to maintain long-term high standards in education services.

## ■ DIAGNOSIS

1. *Education expenditure is dependent on the fiscal capacity of local governments*. The Hungarian system of local governments is highly fragmented. 75 per cent of local governments administer settlements with populations of less than

[1] The Education Round Table appealed to the Constitutional Court of Hungary in connection with the issue that in some cases current legislation fails to guarantee adherence to the requirement of compulsory education. See the *Appendix* for the petition submitted to the Court and the correspondence that followed.

two thousand people and 90 per cent provide services for populations of no more than five thousand people. Despite the small size of most municipalities they have a wide range of responsibilities, including the provision of public education. The logic of putting local governments in charge of public education services was that decentralised structure is consistent with the concept of 'subsidiarity', which is based on the notion that decisions should be made at the governmental level closest to the decision situation closest to the users, since that is where local needs can be assessed and local cost differences can be dealt with. However, as a result of the highly fragmented local government system, the actual users of local services do not correspond to the population under the jurisdiction of a given local government. In settlements with less than five thousand people, 20–25 per cent of schoolchildren do not attend their local schools — as shown by the data of the National Assessment of Basic Competences of 2006. Since the majority of these settlements maintain only one school, at least every fifth child living in a settlement of fewer than five thousand inhabitants goes to a school run by another local government.[2] There are large differences between local governments' fiscal capacity and they also differ greatly in their educational spending per pupil (VARGA, 2000; HERMANN, 2005*a*). The poorest quintile of towns spend 15–20 per cent less per pupil than the richest quintile of towns *(Figure 10.1)*. For villages, local governments in the lowest income quintile — where, as every survey agrees, children from disadvantaged backgrounds are concentrated as a result of geographical segregation — substantially lag behind the rest of the country and the gap is growing (HERMANN, 2007*a*).

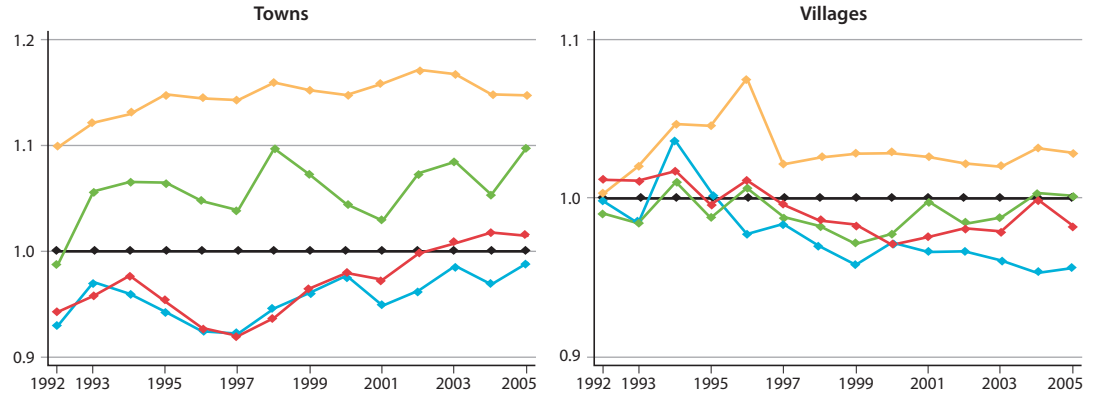
As a result of the highly fragmented local government system, the actual users of local services do not correspond to the population under the jurisdiction of a given local government.

The average per capita income and property wealth of local governments have a strong impact on education expenditure. The better the fiscal capacity of a local government is, the higher per pupil amount it can spend on education. Since pupils from disadvantaged backgrounds are concentrated in relatively poor settlements or areas, a strong positive correlation can be observed between the wealth of local governments and the proportion of pupils from disadvantaged backgrounds. This means that the observed effects of income differences between local governments have the consequence that areas with a higher share of disadvantaged pupils spend on average less on education. The relationship between expenditure and local government income holds both for purchases and for wages separately: relatively rich local authorities spend more on wages as well as on purchases per pupil than do the administrations of poorer settlements. In villages, population wealth exerts an even greater influence on *kindergarten* spending than it does on primary school expenditure; that is, quality kindergarten education services in villages are even more hampered by the current funding scheme (HERMANN, 2005*a*).

The average per capita income and property wealth of local governments have a strong impact on education expenditure.

Town administrations and some village administrations maintain more than one school. The allocation of funding across schools is the responsibil-

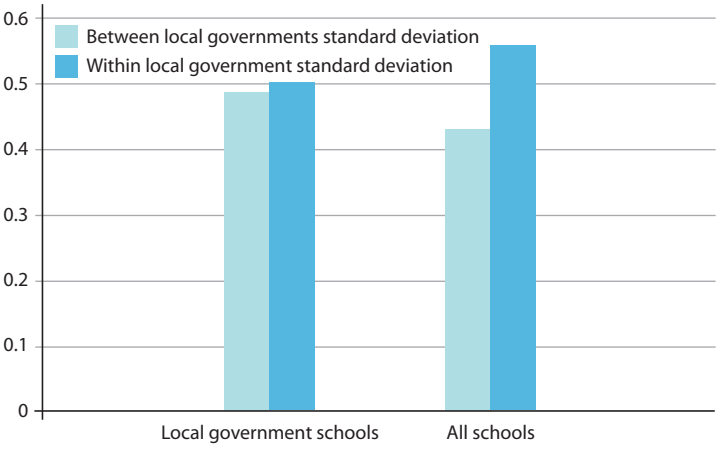
[2] The effects of non-local school attendance on equity are discussed in Chapter 5 of this volume.




From top to bottom: from top income quintile to bottom quintile. The straight line at the value of 1 represents the middle income quintile.

[SOURCE] HERMANN (2007*a*).

[FIGURE 10.1]
Primary school expenditure per pupil and average income per inhabitant for quintiles by average income of villages and towns, as a proportion of the middle quintile, 1992–2005




[SOURCE] HERMANN (2007*a*).

[FIGURE 10.2]
Between and within local governments standard deviation of per pupil primary school expenditures (local governments with more than one school)

ity of local authorities. In settlements with more than one school substantial differences can be observed between schools in terms of expenditure. Looking at schools run by local governments, per-pupil spending varies between schools within settlements as much as it varies between settlements, and with all schools taken into consideration, within settlement variation is greater than between settlement variation *(Figure 10.2)*.

Within settlements, higher spending per pupil is observed for schools with a relatively large share of disadvantaged pupils. Higher spending may indicate that these schools receive more support from local authorities but it could also follow from relatively small pupil enrolment, which may be the result of these

schools being less popular with parents, leading to under-utilization of capacity. For the schools of local governments maintaining more than one school, a higher average settlement income (and lower share of disadvantaged pupils in the settlement) goes together with a stronger correlation between the share of disadvantaged pupils and per-pupil spending. That means that relatively poor local governments do not (cannot) redistribute resources within their settlements to allocate additional resources and improve teaching conditions at schools with relatively unfavourable pupil compositions (HERMANN, 2007*a*).

Local governments receive several types of grants from the central budget, most of which are proportional to the number of students enrolled.[3] The funding for public education is built on a basic per-student grant and supplementary formula grants, which local authorities can freely redistribute between education and other services. The per-student grants do not vary between local governments, the system disregards differences in settlement income, in fiscal capacity and any possible differences in costs. The number of various standard and supplementary grants steeply increased from the 1990s onwards: in 1995 there were 16 types of grants for education, which, with some dips and rises, then grew to 60 types by 2004. In addition to these lump-sum grants, some earmarked grants and project funding schemes (granted through a tender procedure) have been introduced from 1997 onwards, which must be used for pre-determined educational purposes.

The introduction of specific non-earmarked and earmarked grants was an attempt to find a solution to the genuine problem that school maintaining local authorities greatly differ in their fiscal capacity and there may be substantial differences in costs between settlements. Costs may vary especially greatly between small settlements. Local governments maintaining just one school have less room for manoeuvre in the influencing of costs and, moreover, they typically have fewer local resources at their disposal to support their schools than does the average local government.

The substantial cost differences come from variation in school size, the condition of school buildings, energy expenses or teachers' experience and qualifications (affecting wage costs), which are not reflected in invariable per-student grant rates. Due to the increase in the number of grant entitlements, as of the late 1990s significant support can be claimed with reference to settlement type and pupils' social circumstances, and there are grants encouraging school maintaining associations of local governments and supporting the commuting of students between settlements. At the beginning of the new millennium the share of these grants exceeded 10 per cent of total central funding. The expansion of the number of grants, however, has not achieved an income redistribution among individual local governments that could cancel out the

[3] In September 2007 a so-called *educational performance indicator* was introduced, which is still based on a single measure, the number of pupils enrolled, but it unequivocally defines preferred and funded numbers of instruction hours per pupil and per teacher as well as class size. (HERMANN, 2007*b*).

correlation between education expenditure and local governments' fiscal position. Although with the increase in the share of general redistribution income-related disparities in educational spending had been somewhat reduced by the turn of the millennium, it still remains significant (HERMANN, 2005*a*). The current education funding system does not ensure wealth neutrality.

Grants directly aimed at reducing disadvantages cannot compensate for the gap between the expenditures of local governments.

2. *The inadequacy of special purpose grants*. Grants directly aimed at reducing disadvantages (skills development grant, integration grant) cannot compensate for the settlement income-related gap of over 20 per cent between the expenditures of urban local governments; it has increased per-pupil spending by only a few percentage points. Targeted grants amount to an added expenditure of 1–5 million Hungarian forints per school among urban schools and 0.6–4.5 million forints per school among village schools at most — if the local authorities running the school do not decrease their spending financed from local resources and non-earmarked grants, — an amount which is insufficient for quality education provision (HERMANN, 2006). This sum covered in-service training for a few teachers per year but did not allow schools to raise teachers' pay to a significant extent or to employ support staff or introduce other significant changes aimed at improving teaching quality. Since local governments consider their total budgets in distributing resources, an increase in the amount of ear-marked and other special purpose grants tends to lead to a saving in local resources.

With the current system of funding and allocation of responsibilities, educational conditions for disadvantaged pupils can only be improved if the substantial differences between local governments in their fiscal capacity are mostly equalised. This is, however, a purely theoretical solution since the size of local governments and the great variation in their fiscal capacity mean that equalization could only be realized through redistribution on such a large scale that it would be excessively wasteful and no longer efficient. The persistently low level of central funding, on the other hand, does not make it possible for local governments with relatively poor fiscal capacity to provide high quality services. It is clear that a major revision of the allocation of responsibilities and of the funding system is needed.

Voluntary associations are an inadequate solution to the problem of providing quality education for disadvantaged pupils; they may contribute to the gap between disadvantaged regions and the rest of the country.

3. *Associations*. The central administration seeks to tackle problems of cost efficiency and economy of scale and to equalize differences in educational services by encouraging voluntary associations through a combination of financial and legislative means (a special purpose formula grant for associations and a regulation requiring schools with less than eight grades or with pupils below a specified threshold to join an association). In the wake of changes to the regulations the number of local governments participating in institution maintaining associations significantly increased in 2007 (LANNERT, NÉMETH & SINKA, 2008). Voluntary associations are, however, an inadequate solution to the problem of providing quality education for disadvantaged pupils; they may, in fact, contribute to the gap between disadvantaged regions and the rest of the country.

One reason is that the poorest local governments with no local resources, where disadvantaged pupils are concentrated, are often left out of associations. The story of pupils living in Csörög village[4] was an extreme manifestation of this problem, where the local government did not have a school and was not in a position to establish one but none of the surrounding settlements admitted the children of Csörög to their schools. This particular case was eventually settled thanks to an *ad hoc* agreement but it has highlighted a general problem: the current fragmented and in some ways dysfunctional network of local administration is required to meet an overly wide range of responsibilities and current regulations cannot even guarantee that all children receive compulsory education. The problem is that the legislation does not specify whose responsibility it is to ensure basic educational services, i.e., the requirement of compulsory education in the event that local governments — through no fault of their own — fail to do so.

Since under current legislation there is no means to create associations covering all local governments in a situation where this would be against their will, the central administration has attempted to encourage associations not to refuse underprivileged settlements by introducing incentives. The Public Education Act as amended in 2007 states that in allocating funding priority must be given to associations which include disadvantaged settlements or where 25 per cent or more of the children of poor and uneducated parents. These incentives may alleviate the problem but fail to provide guarantees that the most disadvantaged settlements will be allowed to join associations.

There is another reason why voluntary associations are not an assured solution to the problem of creating the conditions of quality education for disadvantaged pupils: the fiscal capacity of local governments forming an association may be equally poor or equally good. By exploiting the advantages of economies of scale, associations can improve their services but the mere existence of an association does not guarantee that the financial conditions for quality services will be produced. To achieve that goal, the central funding received by the local governments running schools would need to compensate for differences in fiscal capacity. For an association of poor local governments, for instance, the special purpose association grant is insufficient to fund quality services. Studies comparing schools run by associations to schools maintained in small settlements reveal that there are hardly any significant differences between the two groups in terms of learning conditions (HORN, 2005).

[4] Csörög was given municipality status in 2002 but it did not have a school. The local authorities signed an agreement with neighbouring Sződ, which had to be renewed annually, to fulfil the requirement of basic education provision. At the beginning of the school year of 2007/2008, however, Sződ refused to admit the 30 Roma children from Csörög and as associations are formed on a voluntary basis, none of the local governments could be compelled to admit the children.

4. *The effects of free school choice under the current institutional structure.* Under the current school management system — with a policy of free school choice — it is common for primary schools located in towns or major villages to attract about a quarter of primary-age children living in surrounding smaller settlements, especially children from families with a relatively high social status. As a result, most schools run by village administrations in villages surrounding urban areas are typically attended by the children of local unskilled, poor, unemployed and uneducated parents. The education providers within commuting distance of each other are *de facto* interrelated but they do not assume any *de jure* institutional responsibility for each other, although the close relationship between them has a substantial effect on the distribution of advantages and disadvantages. Within the current system of local government rights and duties, however, there can be no equal opportunity law or regulation that could provide a solution to this problem. The reason being that the problem stems from the fact that constitutional order is not in harmony with reality, namely that settlements within reasonable commuting distance of each other have a shared responsibility for the entire population of every settlement in the area.

Constitutional order is not in harmony with reality: settlements within reasonable commuting distance of each other have a shared responsibility for the entire population of every settlement in the area.

5. *Teacher employment problems.* An extensive range of publications and empirical studies is available to show that the quality and effectiveness of education and pupil learning outcomes strongly depends on teaching quality. (See, for instance, KERTESI & KÉZDI, 2005 and an overview by McKinsey & Company: BARBER & MOURSHED, 2007.) In Hungary, a large number of teachers are employed at low wages in public education. The teaching workforce is larger than necessary because teacher numbers have not been reduced in proportion with the decline in the number of pupils. After 1990 the number of pupils declined to a far greater extent than the teaching workforce at primary schools, and the increase in the number of secondary school pupils did not keep pace with the expansion of the teaching workforce at secondary schools. With education expenditure held constant, there is an inverse relationship between employment level and teachers' pay. Hungary is one of those countries where both the pupil-teacher ratio and teachers' relative wages are low. Without the rationalization of employment policies, the only way to realise long-term improvement in teachers' pay conditions would be to increase educational expenditures to such an extent that there would be an intolerable strain on the budget.

In Hungary, a large number of teachers are employed at low wages in public education.

The excessive teaching workforce does not follow from the existence of a large number of small schools.

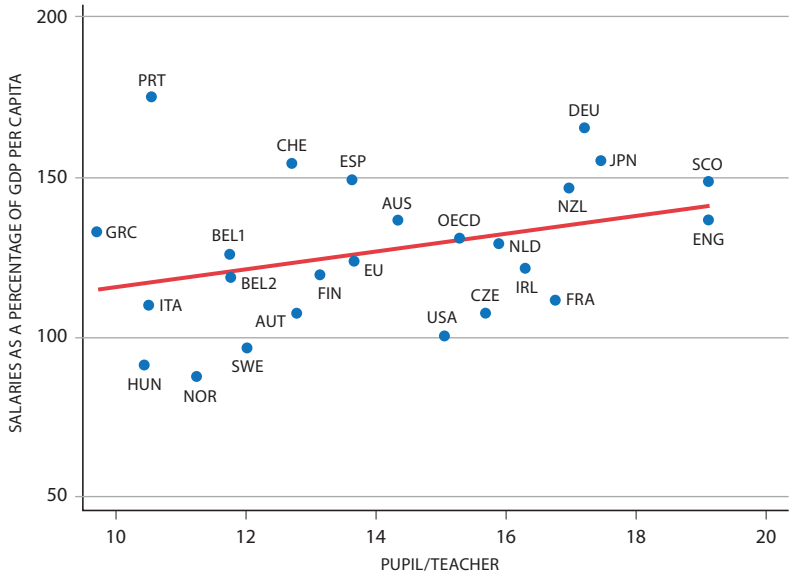
The excessive teaching workforce does not follow from the existence of a large number of small schools. Only a small proportion of all teachers are employed by small schools: the closure of *all* schools with less than 200 pupils would only effect a reduction of 3 per cent in the total teaching workforce (HERMANN, 2005*b*). The pupil-teacher ratio decreased uniformly across towns and villages and across settlements with different demographic profiles *(Figures 10.4* and *10.5),* including settlements where the number of school-age children did not decline or, on the contrary where a substantial increase happened to be experienced (HERMANN, 2007*b*).

Employment decisions are separated from funding decisions.

In addition to the inflexible local adjustment to demographic change, the decline in pupil-teacher ratios is also related to various regulations, such as statutory teaching hours, the definition of allowances for teaching hours and the authorization or support of curriculum modifications. A further factor is that employment decisions are separated from funding decisions. Teachers are public sector employees employed by their school and teacher salaries — to-

[FIGURE 10.3]
Teachers' salaries with 15 years of experience as a percentage of GDP per capita and pupil/teacher ratios in primary and lower secondary education (ISCED1-2) in OECD countries, 2005

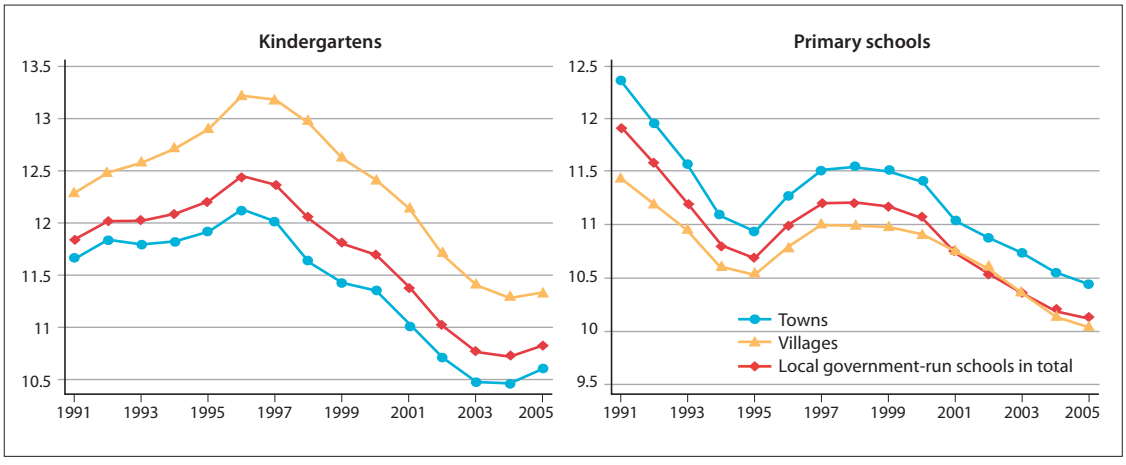
[SOURCE] OECD (2007).

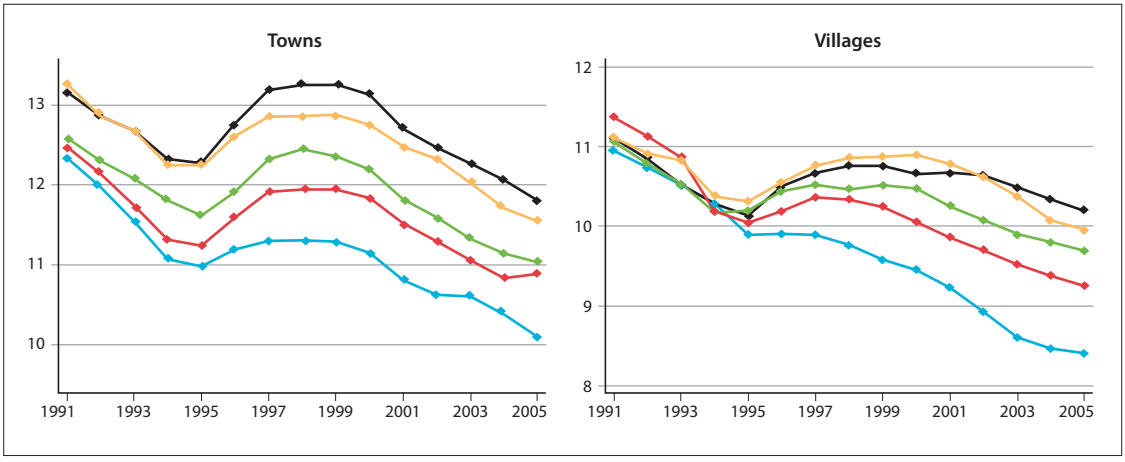



*Abbreviations* AUS: Australia; AUT: Austria; BEL: Belgium; CHE: Switzerland; CZE: Czech Republic; DEU: Germany; DNK: Denmark; ENG: England; ESP: Spain; EU: European Union; FRA: France; FIN: Finland; GRC: Greece; HUN: Hungary; JPN: Japan; IRL: Ireland; ITA: Italy; NLD: the Netherlands; NOR: Norway; NZL: New Zealand; POL: Poland; PRT: Portugal; SCO: Scotland; SWE: Sweden; USA: United States.

[FIGURE 10.4]
Pupil/teacher ratios at kindergartens and primary schools by settlement type, 1991–2005

[SOURCE] HERMANN (2007*b*).






[FIGURE 10.5]
Pupil/teacher ratios at primary schools by quintiles with respect to demographic change in towns and villages, 1991–2005

[SOURCE] HERMANN (2007*b*).

gether with other school costs — are supplied by the relevant local government. The size of the teaching workforce is essentially determined by centrally specified statutory teaching hours and minimum and maximum class sizes.

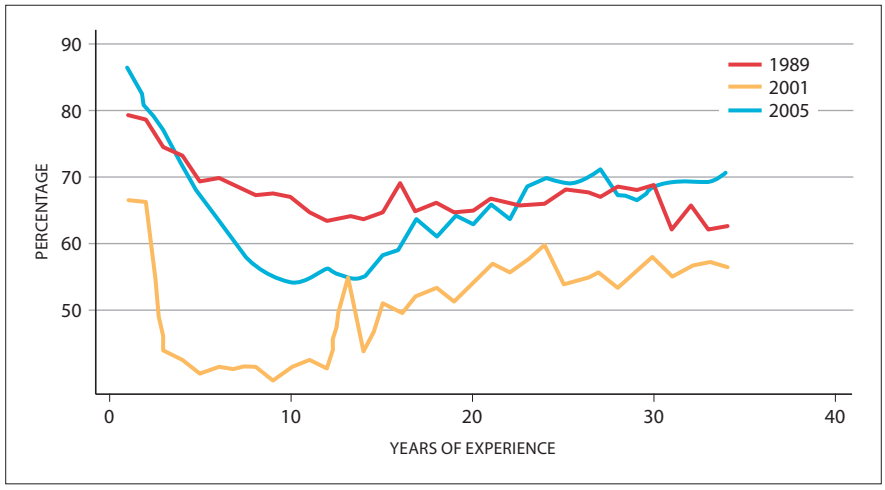
Local authorities typically have to resort to extreme measures — school closure or merger — to reduce the teaching workforce as they have little room for flexible adjustments in either employment or pay policies. Schools are closed to reduce the number of employees if local authorities face a substantial fall in the level of funding from the central budget (HERMANN, 2007*b*). These budget cuts have a one-off effect: they prompt local governments to cut spending in the short term, which does not necessarily lead to an improvement in efficiency in the long term since the focus is on reducing costs and less or no consideration is given to maintaining or improving the quality of services. In Hungary very few people are employed part-time or on an hourly basis in public education.[5] Teachers have high job security due to their status as public sector employees and for the past one and a half decades teacher trade unions have focused their activities on preserving teaching jobs. The most recent amendments to the legislation on public sector employment and education — increased statutory teaching hours, the introduction of workforce planning — are aimed at rationalizing workforce size, and the introduction of a three-year trial period for new teachers could be a step towards quality selection.

6. *Problems related to teachers' pay.* The stability in the number of teaching jobs has been accompanied by a steep fall in the relative wages of teachers, which has been only temporarily mitigated by teacher pay rises. Since the size of the

[5] In 2005 non-pensioner part-time teachers accounted for 0.2 per cent and pensioner part-time teachers made up 5.7 per cent of teaching staff in primary education. In secondary education 0.6 per cent of teachers were in part-time non-pensioner employment and 9.8 per cent in part-time pensioner employment, as shown by the Hungarian Public Employment Service payroll survey.

[FIGURE 10.6]
Qualified teachers' salaries as a percentage of all graduate salaries by years of experience, 1989, 2001, 2005

[SOURCE]
Public Employment Service payroll surveys.




workforce remained constant, the increase in salary levels lost its value within a few years. The greatest loss in relative wages was experienced by young teachers in the first ten years of their careers. In 1989 new teachers had been in a better position relative to other graduate employees than their older colleagues but over the next few years they experienced the greatest decline in their position relative to other graduate employees with the same years of experience. This trend was a direct consequence of the fact that while the labour market value of young graduates' qualifications had dramatically increased over the years (KERTESI & KÖLLŐ, 2002; KÉZDI & KÖLLŐ, 2000), public sector salaries can increase only as a function of experience and qualifications. Teachers' pay therefore could not follow the rising value of higher education degrees and a career in teaching became an even less attractive option for young graduates than it was for older colleagues *(Figure 10.6)*. The relative position of young teachers with university degrees declined even more than that of young teachers with college degrees *(Figure 10.7)*.

Teacher employment and pay policies have encouraged negative selection processes among people consideraing a teaching career.

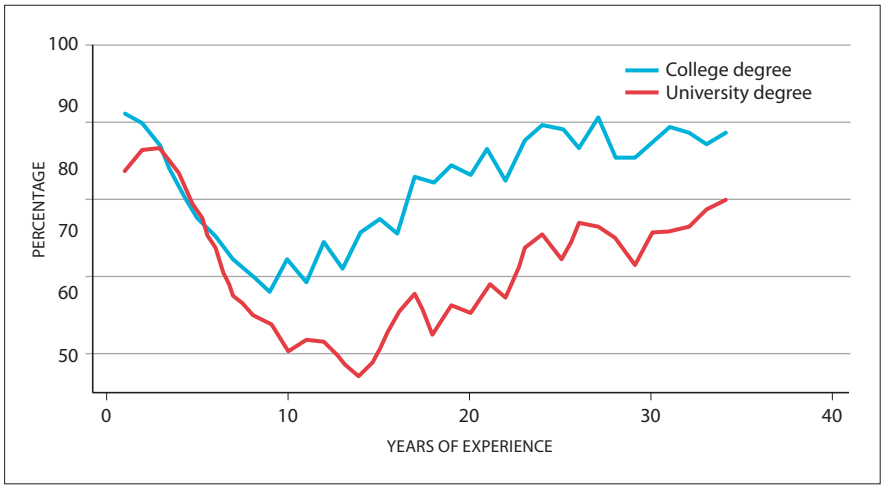
Teacher employment and pay policies have encouraged negative selection processes among people considering a teaching career. A teaching major in higher education is chosen by students with relatively poor skills, it is the weakest among them who become teachers following graduation and repeatedly among those it is again the weakest who stay in the profession for longer than a few years (VARGA, 2007) — which constitutes a firm barrier to the renewal of public education. In countries with the most successful public education systems, in addition to selection for teacher training, a career in public education has been made attractive to gifted young people by offering starting teacher salaries approaching the level of starting salaries typical in other graduate professions (McKinsey report: BARBER & MOURSHED, 2007).

Countries with the most successful public education systems offer starting teacher salaries approaching the level of starting salaries typical in other graduate professions.

Teachers' salary scales, where pay levels are effectively determined by level of education and years of experience, leave very little room for more difficult

[FIGURE 10.7]
Qualified teachers' salaries as a percentage of equivalent level graduate salaries by years of experience, 2005

[SOURCE]
Public Employment Service payroll surveys.




work to be recompensed, which means that disadvantaged children are more likely to be taught by teachers with relatively poor skills and knowledge. Teachers' pay schemes make barely any provision for rewarding quality work. The share of allowances that can be paid to reward quality work or difficult working conditions is so small that it cannot cover the difficulties a teacher has to cope with. The negative selection processes observed among young graduates must be stopped, the extra efforts needed to provide quality education in disadvantaged settlements and/or for disadvantaged pupils must be rewarded and the funding system and teachers' pay scales should be revised. To put a halt to the declining trend in the quality of teaching it is necessary — but not sufficient — to reduce the size of the teacher workforce and to reallocate the resources thus freed to improve the relative income position of teachers, taking differences in responsibilities into account. Better pay conditions will not improve teaching quality unless workforce reduction is accompanied by quality selection and salaries are raised according to merit. Introducing salary supplements for starting teachers can help to make teaching careers more attractive but it is more difficult to sustain the value of supplements and continue their payment indefinitely, compared to having them incorporated in standard pay scales.

Pupils from disadvantaged backgrounds have even less than usual access to quality teacher services.

7. *Teachers of children from disadvantaged background.* The decline in teaching quality has an overall adverse effect on pupil outcomes but pupils from disadvantaged backgrounds, who have even less than usual access to quality teacher services, are especially badly affected. A substantial proportion of local governments do not have other sources to supplement teachers' salaries because of the relationship pertaining between the incomes and the educational expenditures of local governments. As a result of residential segregation, a significant proportion of disadvantaged pupils live in relatively poor settlements where teachers are paid the lowest or close to the lowest salary defined by the pay scale and

where other cost saving measures are also sought. This means that a larger element of teachers working here have no qualifications or lower qualifications than teachers in richer settlements and also tend to be younger, in lower pay grades.

These schools employ a significantly larger proportion of young teachers under the age of 35 and there are more teachers with no teaching qualifications and fewer teachers with university degrees. At small village schools a high share of classes are given by unqualified teachers (13.4 per cent), which is also frequent at large village schools (9.1 per cent) compared to town schools (3.1 per cent) (HORN, 2004; HERMANN, 2005*b*). Schools attended by a large proportion of Roma pupils operate with a lower share of teachers qualified for the subjects taught compared to the average school and teacher absenteeism is also more common than average (HAVAS & LISKÓ, 2006). Disadvantaged pupils' foreign language classes are also considerably more likely to be taught by unqualified instructors. This is partly the consequence of disadvantaged pupils living in relatively poor settlements where local authorities are not in a position to pay higher wages, but a correlation has also been found between the proportion of at-risk pupils and the likelihood of unqualified teachers *within* settlements as wages do not compensate for the more difficult work of teachers at schools with a large share of disadvantaged pupils (LINDNER, 2007). As a consequence of differences in the difficulty of work, quality teachers can be expected to leave schools with a large share of disadvantaged pupils even if there is no difference in wages (the mechanisms behind this process are discussed in Part 2 of KERTESI & KÉZDI, 2005) and the typically lower wage levels further strengthen this effect. That is, it is the least qualified teachers among the overall declining quality teacher workforce that are found at schools attended by a relatively large proportion of disadvantaged pupils.

The current institutional structure makes it impossible to introduce a quality assurance and accountability system providing appropriate incentives.

8. *The relationship between school effectiveness and the distribution of resources*. The current institutional structure makes it impossible to introduce a quality assurance and accountability system providing appropriate incentives. As specified by the current Public Education Act, schools and the local authorities maintaining them are responsible for sustained school failures as measured by the National Assessment of Basic Competencies programme: they are required to prepare an action plan which clearly defines strategies of enhancing educational services. However, poorly performing village schools which are mostly attended by children with problems and which are likely to be hampered by a lack of resources do not have access either to the funds needed to reform their educational services or to suitable teaching staff and professional competences. If the powers and responsibilities of providing education were allocated in accordance with the reality of the free school choice system, the responsibility of reforming institutional organisation and education services in response to sustained school failures would lie with a broader education providing community, which had the necessary resources, entitlements and professional competences, and could reasonably try to turn around their declining schools.

## ■ SUGGESTIONS

To moderate the substantial gap between the expenditures of schools, the structure of local administration and the allocation of responsibilities need to be fundamentally revised.

1. To moderate the substantial gap between the expenditures of schools and to achieve lasting improvement in the financial conditions of educational institutions serving underdeveloped regions and/or attended by a large proportion of disadvantaged pupils without significant extra burden on the central budget, the structure of local administration and the allocation of responsibilities need to be fundamentally revised. There are two feasible options for restructuring: *1.* the responsibility of public education provision can be transferred from local authorities to a higher level of administration, and *2.* public education can be funded directly from central budget sources. As the latter solution was not supported by the Education Round Table, our suggestions are based on the first possible solution, where education provision remains a decentralised task. However, in this case a pre-requisite of efficient locally managed public education services is to create a powerful intermediate level of administration, the level of *micro-regional governments* and to allocate the responsibility for providing public education to this level.[6] This step (similarly to a decision to introduce centralised education provision) requires qualified majority voting but appears to be unavoidable if the conditions of education are to be balanced across the country.

Once the local administration system has been restructured, public education provision responsibilities should be transferred from the level of local governments to the level of micro-regional governments in the medium term. We propose that micro-regional education districts should be defined.

We propose that once the local administration system has been restructured, public education provision responsibilities should be transferred from the level of local governments to the level of micro-regional governments in the medium term (in four or five years). We propose that micro-regional *education districts* should be defined with the aim to co-ordinate local education, employment and funding policies and thus establish informed regional education policies under the leadership of an elected education official vested with broad powers. Micro-regional school management has the benefit that differences in micro-regional income generating abilities are easier to equalize among larger units of administration while micro-regional school management retains the

[6] The need to maintain a sustainable public education system and to reduce profound inequalities in the conditions of public education is not the only reason why it is vital to restructure the system of local administration and create a firm intermediate level of government. Restructuring is also needed for the efficient delivery of several other tasks since local authorities are currently responsible for the provision of a considerable share of public services. In Hungary it is not only the issue of public education that calls for a reform of local administration although problems of sustaining public education services may constitute a sufficient reason for reforms, as was the case in Scandinavian countries in the 1970s (CALDWELL & HARRIS, 2006). It is a reasonable option for Hungary, as well, to start the implementation of the necessary reform of local administration with consideration to the apparently "particular" problems in public education. Firstly, education services constitute a major element of local government responsibilities, public education expenditure accounts for about 30 per cent of total local government expenditure. Secondly, the concerns of public education and those of some other local government services stem from the same problem, namely that the system of local administration is far too fragmented to meet the broad range of responsibilities assigned to local authorities.

advantages of a decentralised system and can accommodate users' needs and local differences in costs.

2. We propose that micro-regional education districts within each micro-region should be granted independent fund management entitlements and should be authorised to make micro-regional education and funding policies based on their own budgets and fund management entitlements. We propose that all central funding allocated to micro-regions — which is intended to fund running costs — should be directed to education districts. Investment and building maintenance costs should be covered partly by the micro-regions' local resources and partly by special-purpose grants.

We propose that central funding allocated for educational services in micro-regional education districts should be made available to the districts with the restriction that it can only be used for the purposes of education.

3. We propose that central funding allocated for educational services to micro-regional education districts should be made available to the districts with the restriction that it can only be used for the purposes of education. (Similar models can be found in other countries with decentralised, local education management systems, such as the United Kingdom.) We propose that a funding model should be created which allocates two types of funding to micro-regional education districts. One part of the funding should finance school and kindergarten budgets at institutional level while the other should be reserved for education related services at micro-regional level (school bus, basic art instruction, educational counselling services, pedagogical services for schools, etc.). We propose that both types of funding should be allocated using a formula based on the size of school-age *population* (rather than the number of pupils enrolled), various characteristics of local educational service provision, the proportion of pupils from disadvantaged backgrounds and the fiscal capacity of the micro-region. This formula ensures that budget allocations to micro-regions are distributed according to pre-defined and tractable rules while funding rates per pupil can differ between micro-regions with different characteristics.

The total budget should be divided into school budgets and resources covering micro-regional services.

4. We propose that the budgets of micro-regional education districts should be subject to regulations dividing the total budget into *school* budgets and resources covering *micro-regional* services. Micro-regional authorities should be permitted to use central education funding allocated to micro-regions for non-educational purposes by penalising non-educational use (through a repayment requirement). Beyond this restriction, however, the authorities should be free to decide how to spend their delegated funding and should be licensed to transfer local resources to their education budgets. To encourage a predictable and transparent relationship between education districts and individual schools, we propose that micro-regional education districts should be formally required to distribute the micro-region's school budget funding according to a pre-defined formula which takes into account differences between schools in terms of responsibilities and costs. The funding

formula should be defined by the micro-regional education district. Non-governmental education providers should also receive their budget allocations from micro-regional education districts and their funding should also be calculated according to the formula used for schools under the management of micro-regional authorities. This would help local education policies to take into account the activities of schools which are not owned by the state or run by micro-regional authorities.

Employer rights should be divided between micro-regional education districts and schools, and teachers should be employed on a contractual basis.

5. To create the conditions of rational finance and human resource management employer rights should be divided between micro-regional education districts and schools, and teachers should be employed on a contractual basis.

6. The implementation of the model outlined in paragraphs 1–5 above is a long-term task. In the short term a considerable proportion of local education authorities will not be able to produce the resources needed for proposed changes involving increased running costs (such as the expansion of kindergarten services for children from disadvantaged backgrounds or the recognition of more difficult work in teachers' pay) as these plans are most likely to be relevant to local governments in regions with a persistent shortage of resources and/or characterised by social deprivation. This being the case conditional grants should be allocated in the short term for the implementation of these tasks. To moderate the increase in costs, to make funding claims transparent and to reduce the incidence of unauthorised use, we propose that per-pupil public education grants should be claimed and accounted for according to the pupil-level database of KIR (Public Education Information System), which is based on education identification numbers uniquely assigned to each pupil.

Conditional grants should be allocated in the short term.

Teachers' pay scale should revised to effect substantial improvement in the relative salaries of teachers at the initial stage of their careers.

7. In order to enhance service quality and to reverse negative selection processes observed among teachers, the teachers' pay scale should be revised for the period of time during which teachers are employed as public sector employees. This should involve a revision of career advancement schemes to effect substantial improvement in the relative salaries of teachers at the initial stage of their careers setting the target to match an average graduate salary within about five years. This pay rise applies to teachers employed in public education with less than ten years experience — about 10–12 per cent of the teaching workforce. The extra wage costs could be covered by funds saved by rationalising the teaching workforce and due to the decline in pupil numbers (see Chapter 13).

More difficult working conditions should be taken into account to a far greater extent in determining teachers' salaries.

8. We propose that more difficult working conditions should be taken into account to a far greater extent in determining teachers' salaries. Since these work conditions are especially typical of institutions in regions with a persistent shortage of resources and/or characterised by social deprivation, a dedicated source of funding is needed.

A centralised, comprehensive inspection system should be set up. The Educational Agency should issue a comprehensive inspection report on every school.

9. The restructuring of the institutional and funding system is a necessary but not a sufficient condition of reducing the gap between school achievements. We propose that a centralised, comprehensive inspection system should be set up (modelled on the British Ofsted programme). The inspection system should be maintained by the Hungarian Educational Agency — which should be given extended powers — and the new Educational Agency should be accountable to Parliament. The Educational Agency should issue a comprehensive inspection report on every school (including schools that operate within the public education system but are not maintained by the state or micro-regions) every three or four years. Inspection should be carried out according to a standardised methodology taking school specific characteristics into account (site of operation, socio-cultural background, the main objectives and priorities of the institutions) and assessment should cover pupil outcomes (including the results of the National Assessment of Basic Competences), teaching quality (teaching methods and teacher evaluation, the school's relationship with parents and local society) and school management. We further propose that the Educational Agency should regularly review the strategic education policy documents of micro-regions and analyse the causes of achievement differences between individual schools and the causes behind variation in educational conditions across individual schools. Based on the results of assessment, the Educational Agency should make recommendations for intervention and sanctions in specific cases.

Related to the reform of the local administration model, the restructuring of the institutional and funding system is a task that can be completed in the medium term. It needs to be preceded by careful preparations and is contingent on a political consensus needed for the amendment of legislation requiring a two-thirds majority. Preparations should be started without delay and a detailed proposal for the new institutional and funding model should be produced. Several components of our suggestions can be implemented in the short term: the powers and organization of the Educational Authorities can be adjusted and the assessment of schools and local authorities responsible for public education can begin in 1–3 three years. The revision of teacher salary scales can begin in the near future with the objective of closing the gap between new teachers' salaries and average graduate salaries and to allow more difficult work conditions to be recompensed. The reform must be preceded by negotiations and an agreement should be reached with teacher trade unions to establish that the salary model cannot be revised unless the teaching workforce is reduced in proportion with future demographic changes and to define the outcome of the revision, the timing of salary increases and the principles of revising salary scales.

## ▪ COSTS, BENEFITS, LINKS TO OTHER PROGRAMMES

Among the tasks proposed to be implemented in the short term, extra funding is required to set up the inspection system under the supervision of the Educational Agency. This step is related to Objectives 3.3.2 of the Social Renewal Operative Programme (TÁMOP) and can be financed from its resources. Since the inspection programme can be implemented by restructuring current organisations and involving the knowledge centres proposed for the enhancement of assessment and evaluation and accountability, it requires modest extra resources.

The costs of revised salary scales depend on the future size of the teaching workforce, changes in the distribution of teachers according to years of experience and the rate of pay increases. Higher financial rewards for difficult work conditions constitute additional costs in proportion to the rate of salary adjustments and the number of teachers entitled to adjustments.

In the long term the reform of teacher salary schemes — together with the reform of teacher education — can have a significant effect on teaching quality and can bring decisive improvement in the effectiveness of education. To achieve lasting improvement, however, it is essential to reach a consensus even though teacher trade union leaders are expected to show strong resistance since the revision of salary scales is conditional on the continued rationalisation of the teaching workforce.

The extension of the powers of the Educational Agency can have the long-term effect of establishing a feedback-driven education development model. The inspection programme, however, may earn the disapproval of both schools and the authorities maintaining them, which can be allayed by emphasising the supportive character of the system.

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[APPENDIX]
1. PETITION BY THE EDUCATION ROUND TABLE TO THE CONSTITUTIONAL COURT OF HUNGARY

The Constitutional Court of the Republic of Hungary
Budapest

Dear Sirs,

Exercising our right as specified by Paragraph (4) §21 of Act XXXII of 1989 on the Constitutional Court (henceforth the Constitutional Court Act),

WE REQUEST

that based on Paragraph (1), §49 of the Constitutional Court Act the Constitutional Court establish that the legislator neglected legislative duties and created an unconstitutional situation by failing to provide legislative guarantees of free access to primary education for those whose local authorities cannot by any means — by maintaining an institution or by forming an association or making other local arrangements — fulfil their service provision duty. This may lead to a situation where the children concerned cannot continue their — in principle compulsory — primary school studies. This constitutes an infringement of the right to education as set out in §70/F of the Constitution, specifically the right of access to free and compulsory primary school services. It is similarly an infringement of children's rights as set out in Paragraph (1), §67 of the Constitution and a barrier to the fulfilment of the requirement of compulsory education as specified in §70/F of the Constitution and of parents' or carers' duty to have their children educated as specified in §70/J.

The Constitutional Court is hereby requested to call upon the Parliament to fulfil its legislative duty within a specified time limit.

JUSTIFICATION

As stated in Paragraph (1), §70/F of the Constitution the Republic of Hungary accords its citizens the right to education and Paragraph (2) spells out that the Republic of Hungary guarantees this right — among other measures — by providing free and compulsory primary education services. As stated in §70/F of the Constitution the responsibilities of the state to ensure the conditions of exercising the right to education differ according to the level of education. From among the different levels of education (termed primary, secondary and higher education in the Constitution), "primary education is free and compulsory for all" [1310/D/1990. CC Ruling, ABH 1995. 586.]. This aspect of the right to education is therefore an unconditional human right and an obligation, the conditions of which must be created by the state for every single school-age child. If the state fails to fulfil this constitutional duty, it causes an infringement of the human rights of those concerned on the one hand and obstructs the fulfilment of the constitutional requirement to enrol in primary education on the other.

As specified by current regulations the right to primary education is enforced through the obligation of local governments to provide educational services. As set out in Paragraph (3), §3 of Act LXXXIX of 1993 on public education (henceforth the Education Act) the state ensures free and compulsory primary education through the institution maintenance activities of government organisations and local governments and by specifying state and local government obligations of service provision. Paragraph (4), §8 of Act LXV of 1990 on local governments asserts that local governments of settlements are under obligation to make provision for primary education.

The ultimate guarantee of access to primary education for those who are entitled to the right to primary education is provided by the institution of non-selective school admission, which is defined in Paragraph (2), §66 of the Education Act. The provision states that "the primary school — including the designated school — is required to admit primary school-age pupils who permanently or temporarily reside in its catchment area" (henceforth school with non-selective admission).

If, however, a local government which is under obligation of service provision does not make provision for a school with non-selective admission by maintaining an institution, forming an association or making any other arrangements, a situation may arise in which affected parents and primary school-age children do not have access to primary education and cannot fulfil their obligation to enrol in primary education. Current regulations do not offer these citizens any effective means of exercising their rights. As published in Report 3016/2006, the Ombudsman for national and ethnic minority rights investigated specific cases where the right of Roma children to primary education was jeopardised for the reasons explained above, which the Ombudsman found to represent a constitutional anomaly. The case reported by the Ombudsman confirms the claim that current regulations do not offer adequate guarantees for exercising the right to free and compulsory primary education and this deficiency in the regulations endangers the enforcement of this fundamental right.

The absence of appropriate rules further offends children's right to receive from their families, the state and society the care and protection needed for their due physical, intellectual and moral development, as guaranteed by Paragraph (1), §67 of the Constitution. The internationally recognised catalogue of children's rights, the Convention on the Rights of the Child adopted on 20th November, 1989 in New York, which was declared in Hungary in Act LXIV of 1991, set out the right to education in Article 28. Section 1.a) of the Article — similarly to the Constitution — states that the signatory parties to the Convention must ensure free and compulsory access to primary education for everyone.

The absence of guarantees of access to primary education does not only obstruct compliance with the requirement of §70/F of the Constitution of compulsory primary education but also thwarts the fulfilment of the constitutional obligation of §70/J of the Constitution which requires parents and carers to provide for the education of their minor children.

It is general practice for the Constitutional Court to make a decision of unconstitutionality caused by omission if no guarantees of the enforcement of fundamental rights are provided and when the defective legislation endangers the enforcement of fundamental rights [22/1990. (16 Oct.) CC Ruling, ABH 1990, 83, 86.; 37/1992. (10 June) CC Ruling, ABH 1992, 227, 232.; 6/2001. (14 March) CC Ruling, ABH 2001, 93, 103.]. [For the most recent case see 46/2007. (27 June) CC Ruling.]

With consideration to the above we respectfully request the Constitutional Court to call upon the Parliament to rectify this situation of unconstitutionality caused by omission and fulfil its legislative duty within a reasonable time limit.

Budapest, 11th December, 2007

(Signed)

## 2. THE REPLY BY THE CONSTITUTIONAL COURT

Dear Petitioners,

In response to your — unmodified — petition to the Constitutional Court to make a decision of unconstitutionality caused by omission I once again offer the following information.

As set out in Act XXXII of 1989 on the Constitutional Court (henceforth the Constitutional Court Act) the Constitutional Court is essentially concerned with the investigation of the constitutionality of regulations and other legislative means of state administration. Paragraph (2), §22 of the Constitutional Court Act states that petitions for Constitutional Court proceedings shall include well-defined requests and specify the justification for the requests. As set out in Paragraph (2), §21 of the amended and standardised Decree 3/2001 (3 Dec) on the provisional procedures of the Constitutional Court and their publication (henceforth the Procedures), a request is well-defined provided that in addition to the regulations to be investigated the petition also identifies those provisions of the Constitution which — in the petitioner's view — are violated by the mentioned regulations. Further, the Constitutional Court is not satisfied with references to individual provisions of the Constitution but requests the petitioner to clarify why and in what way the regulations under discussion violate the given provisions of the Constitution (472/B/200 CC Ruling, ABH 2001, 1655; 494/B/2005 CC Ruling, ABH 2002, 1783, 1784).

The Constitutional Court rules unconstitutionality caused by omission if the legislative body has neglected its legislative duty imposed by regulatory authorisation or omitted to define regulations in an area within its authority and responsibilities and thus given rise to unconstitutionality. The Constitutional Court further rules unconstitutionality caused by omission if as a result of omission by a legislator the guarantees of enforcement of a constitutional fundamental right are absent.

You raise the objection in your petition that the Parliament has "failed to provide legislative guarantees of free access to primary education for those whose local authorities cannot by any means — by maintaining an institution or by forming an association or making other local arrangements — fulfil their service provision duty." Your petition, however, does not reveal what legislative guarantees you have in mind; nor does it reveal why and in what way the presumed omission violates the — mentioned — provisions of the Constitution.

With consideration to the above, your petition to the Constitutional Court does not contain a well-defined request as specified by §21 of the Procedures. Should you continue to wish the Constitutional Court to take action, kindly amend your petition — within 15 days of receipt of this letter — to include the above information. Please note that in the event that the necessary amendments are not made or the specified deadline is missed, the Constitutional Court cannot take lawful action.

Finally, I would like to inform you that you have previously appealed to the Constitutional Court with regard to this matter but as on that occasion you failed to make the requested amendments, your petition was filed under case number 1493/J/2007. Please find a copy of the proof of delivery of my earlier registered letter requesting the amendments enclosed with the current letter.

Kindly accept the information hereby provided.

Budapest, 17th June, 2008

(Stamped and signed)

### 3. SECOND EDUCATION ROUND TABLE PETITION TO THE CONSTITUTIONAL COURT

Dear Sirs,

Exercising our right as specified by Paragraph (4), §21 of Act XXXII of 1989 on the Constitutional Court (henceforth the Constitutional Court Act), our petition (Case Number 282/E/2008) requested that based on Paragraph (1), §49 of the Constitutional Court Act the Constitutional Court establish that the legislator neglected legislative duties and created an unconstitutional situation by failing to provide legislative guarantees of free access to primary education for those whose local authorities cannot by any means — by maintaining an institution or by forming an association or making other local arrangements — fulfil their service provision duty. This may lead to a situation where the children concerned cannot continue their — in principle compulsory — primary school studies. This constitutes an infringement of the right to education as set out in §70/F of the Constitution, specifically the right of access to free and compulsory primary school services. It is similarly an infringement of children's rights as set out in Paragraph (1), §67 of the Constitution and a barrier to the fulfilment of the requirement to enrol in primary education as specified in §70/F of the Constitution and of parents' or carers' duty to have their children education as specified in §70/J.

We respectfully requested the Constitutional Court to call upon the Parliament to fulfil its legislative duty within a specified time limit. We uphold our appeal with the following justification.

As stated in Paragraph (1), §70/F of the Constitution the Republic of Hungary accords its citizens the right to education and Paragraph (2) spells out that the Republic of Hungary guarantees this right — among other measures — by providing free and compulsory primary education services. As stated in §70/F of the Constitution the responsibilities of the state to ensure the conditions of exercising the right to education differ according to level of education. From among the different levels of education (termed primary, secondary and higher education in the Constitution), "primary education is free and compulsory for all" [1310/D/1990. CC Ruling, ABH 1995. 586.]. This aspect of the right to education is therefore an unconditional human right and an obligation, the conditions of which must be created by the state for every single school-age child. If the state fails to fulfil this constitutional duty, it causes an infringement of the human rights of those concerned on the one hand and obstructs the fulfilment of the constitutional requirement to enrol in primary education on the other.

As specified by current regulations the right to primary education is enforced through the obligation of local governments to provide educational services. As set out in Paragraph (3), §3 of Act LXXXIX of 1993 on public education (henceforth the Education Act) the state ensures free and compulsory primary education through the institution maintenance activities of government organisations and local governments and by specifying state and local government obligations of service provision. Paragraph (4), §8 of Act LXV of 1990 on local governments asserts that local governments of settlements are under obligation to make provision for primary education.

The ultimate guarantee of access to primary education for those who are entitled to the right to primary education is provided by the institution of non-selective school admission, which is defined in Paragraph (2), §66 of the Education Act. The provision states that "the primary school — including the designated school — is required to admit primary school-age pupils who permanently or temporarily reside in its catchment area" (henceforth school with non-selective admission).

If, however, a local government which is under obligation of service provision does not make provision for a school with non-selective admission by maintaining an institution, forming an association or making any other arrangements, a situation may arise in which affected parents and primary school-age children do not have access to primary education and cannot fulfil their obligation to enrol in primary education. Current regulations do not offer these citizens any effective means of exercising their rights. As published in Report 3016/2006, the Ombudsman for national and ethnic minority rights investigated specific cases where the right of Roma children to primary education was jeopardised for the reasons explained above, which the Ombudsman found to represent a constitutional anomaly. The case reported by the Ombudsman confirms the claim that current regulations do not offer adequate guarantees for exercising the right to free and compulsory primary education and this deficiency in the regulations endangers the enforcement of this fundamental right.

The absence of appropriate rules further offends children's right to receive from their families, the state and society the care and protection needed for their due physical, intellectual and moral development, as guaranteed by Paragraph (1), §67 of the Constitution. The internationally recognised catalogue of children's rights, the Convention on the Rights of the Child adopted on 20th November, 1989 in New York, which was declared in Hungary in Act LXIV of 1991, set out the right to education in Article 28. Section 1.a) of the Article — similarly to the Constitution — states that the signatory parties to the Convention must ensure free and compulsory access to primary education for everyone.

The absence of guarantees of access to primary education does not only obstruct compliance with the requirement of §70/F of the Constitution of compulsory primary education but also thwarts the fulfilment of the constitutional obligation of §70/J of the Constitution which requires parents and carers to provide for the education of their minor children.

It is general practice for the Constitutional Court to make a decision of unconstitutionality caused by omission if no guarantees of the enforcement of fundamental rights are provided and when the defective legislation endangers the enforcement of fundamental rights [22/1990. (16 Oct.) CC Ruling, ABH 1990, 83, 86.; 37/1992. (10 June) CC Ruling, ABH 1992, 227, 232.; 6/2001. (14 March) CC Ruling, ABH 2001, 93, 103.]. [For the most recent case see 46/2007. (27 June) CC Ruling.]

In response to you request of amendment therefore we maintain that the regulations constitute a violation of the Constitution because as a result of a legislative omission no guarantees are provided for the enforcement of a fundamental right and this deficiency endangers the fulfilment of that fundamental right.

The fundamental right primarily affected is the right to education as specified in §70/F of the Constitution, specifically the right of access to free and compulsory primary education. The right to education as set out in §70/F of the Constitution is a second generation cultural right and the state enjoys considerable freedom in its realisation leaving room for considerations of economic means as well. The Constitution, however, contains regulations on sub-rights within the right to education, some of which sub-rights appear as unconditional human rights that the state is under legal obligation to realise. These include the right of access to free and compulsory primary education, which means that in Hungary every school-age child has the enforceable right to have access to free primary education. It follows from the above that the state may be constitutionally required to create the guarantees, including relevant legislative regulations,

needed to ensure that no persons entitled to free primary education are at any time prevented from having access to free primary education.

We believe that these legislative guarantees are currently unavailable. Current legislation [Paragraph (2), §66 of the Education Act] names the institution of non-selective school admission as a guarantee of the above. Practical experiences suggest, however, that this institution cannot fulfil its function of assurance without fail. The cause of failure may be a situation where a local government in principle under obligation of service provision does not provide for non-selective school admission (because it does not maintain an educational institution and does not have a relevant agreement with school maintaining authorities). In this case those concerned have no effective means of enforcing this requirement and at the end of the day, will thus fail to have access to free primary education. The deficiency in the regulations therefore endangers the realisation of a fundamental right and, as the Ombudsman's investigations discussed above demonstrate, it has even led to a violation of this fundamental right in specific cases.

To our knowledge, the legislator has considered a number of regulation options which — provided that they conform to other constitutional requirements — could eliminate the problem of missing guarantees. Possible solutions under consideration have included the options to amend the Local Government Act and the Education Act to vest public administration offices with the power to monitor lawfulness, to make associations obligatory in specific cases and to authorise courts to order the signing of agreements. No genuine progress has been made to date, however, in terms of legislation.

IN SUMMARY:
In your letter requesting the amendment of our petition the objection is raised that our petition does not define the regulatory guarantees that we have in mind. These are legal requirements that guarantee the right to free primary education to all entitled in the event that the local government which is in principle under obligation of service provision fails to arrange for non-selective school admission. We believe that no regulations to this effects — as we have detailed above — are currently available.

You further object that our petition does not specify why and in what way the presumed omission violates the relevant provisions of the Constitution. The omission violates §70/F of the Constitution in that it gives rise to an infringement of that sub-right of the right to education which asserts the right to free and compulsory primary education. It constitutes an infringement of this sub-right because it is an unconditional human right which must be guaranteed by the state in all cases (including cases where a local government fails to fulfil its obligations), and which must be legally enforceable. The current legislation, however, fails to guarantee the enforcement of this right; actual events have provided evidence that the deficiency of the regulations may prevent children entitled to free primary education from having access to it.

If following the First Secretary's preparatory procedure it is upheld that there is no lawful means of continuing Constitutional Court procedures, appealing to Paragraph (2), §23 of the Procedures we request that our petition is presented to the President of the Constitutional Court.

With reference to the above we continue to respectfully request the Constitutional Court to call upon the Parliament to rectify this situation of unconstitutionality caused by omission and fulfil its legislative duty within a reasonable time limit.

Budapest, 9th July 2008 (Signed)

# 11 Employment policy measures to promote education reforms

[János Köllő]

When parents are faced with limited opportunities of finding employment, their children's school achievements and motivation will be affected in several ways. Living with unemployed parents, especially fathers, is the most prominent source of child poverty (BASS, DARVAS & FERGE, 2007, pp. 11–13). DARVAS & TAUSZ (2002) estimate that the probability of educationally relevant deprivation is one-third higher among children living in families with no active earners: these children do not have the necessary school equipment, do not have access to computers, do not take extra-curricular classes or play sports, do not have any spending money or participate in non-compulsory school activities. DARVAS & TAUSZ (2003) further show that being deprived of "opportunity enhancing activities" (books, cinema, sports, computers) is one of the main causes of children's pessimistic outlook and resignation. Children living in unemployed households are more likely to have lost all hope than children in any other social group observed in the study. A similarly grave consequence of having unemployed parents is a reduced probability of staying on at school following the eight-year period of primary education and an increased probability of dropping out of secondary school (KERTESI & KÉZDI, 2007).[1] Last but not least, the labour market failures of families or neighbourhoods that have lost or left employment for a sustained period — and the resulting anticipation of failure — tend to engender a negative attitude toward school requirements, which may characterise not only individual pupils but entire classes or schools.

Measures aimed at renewing education must be complemented by measures of Employment policy. There are good reasons for focusing on improving the labour market position of people with low educational attainment.

It is therefore essential that measures aimed at renewing education are complemented by measures of employment policy with a focus on increasing employment among the population with less than upper secondary qualifications and especially among those who have only completed eight years of primary education or less. There are two reasons why efforts should be focused on improving the labour market position of people with low educational attainment. First, the employment rate is exceptionally low in this group. As can be seen in *Table 11.1,* while the share of children living in families where none of the adults work is 1.2 per cent for graduate parents, 4.6 per cent for parents with upper secondary qualifications and 13.1 per cent for parents with vocational qualifications, the corresponding figure is 48.4 per cent for parents

[1] See Chapter 4 for a discussion of the problem of dropouts.

[TABLE 11.1] EMPLOYMENT STATUS OF PARENTS WITH SIX YEAR OLD CHILDREN (AVERAGE VALUES, 2003–2006)

| HIGHEST EDUCATIONAL ATTAINMENT IN HOUSEHOLD | JOBLESS FATHER[a,b] | JOBLESS HOUSEHOLD[b] |
|---|---|---|
| 0–8 years of education | 50.5 | 48.4 |
| Vocational training | 18.1 | 13.1 |
| Upper secondary education | 8.9 | 4.6 |
| Higher education | 4.7 | 1.2 |
| Total | 16.1 | 12.0 |

[a] The labour survey dataset available for research purposes does not allow the family status (child, parent, other relative in household) of respondents to be determined in households with a complex composition. The above figures apply to those households with six year old children which have at most one male member over the age of 25.
[b] Household members are classed as jobless if they did less than one hour's paid work during the week preceding data collection.

[SOURCE] Hungarian Statistical Office (HCSO) labour surveys.

with lower educational attainments. The second reason is that labour market adjustment is hampered by institutional constraints and high transaction costs relative to wages in the "lowest" segment of the market — such as minimum wage laws and high travel and child care costs — which yields justification for state intervention.

The dropping out of the low-educated population from the labour market is not a statistical illusion, it is not a universal phenomenon and it not only affects the Roma population.

It is important to recognise that the dropping out of the low-educated population from the labour market is not a statistical artefact; it is not a universal phenomenon that is impossible to fight, and it not only affects the Roma population.

*a)* It is widely believed that the employment figures of the Labour Force Survey (LFS) "only reflect the size of the population with registered jobs." In actual fact LFS employment includes a — probably considerable — share of unregistered labour. The surveys show more than twice as high agricultural employment and twice as high construction and service industry employment as the figures of the employment registers maintained by the Pension Insurance Directorate. At the macro level the LFS employment figure is 20 per cent higher (ELEK, SCHARLE, SZABÓ & SZABÓ, 2008) and the difference is estimated to be 33 per cent for the population with 0–8 years of education. (The latter figure also implies that the share of 25–64 year old people in *registered* employment barely exceeds 25 per cent in this social group.) Some of the hidden employment, of course, remains unobserved in either the labour surveys or other datasets. Research based on indirect observations (MOLNÁR & KAPITÁNY, 2006; SZABÓ, 2007), however, suggests that black labour cannot neutralise the disadvantages of casual workers or people reporting to be unemployed or inactive for surveys like the HCSO labour survey: they are characterised by not only low income but also low consumption and they are far less satisfied with their lives than their employed peers with the same reported incomes.

*b)* The dropping out of the labour market of people with basic educational attainment is neither a world-wide phenomenon nor a uniquely Hungarian

characteristic but is typical of the post-socialist countries of Central and Eastern Europe. The employment rate among the low-educated population of each Visegrad country (the Czech Republic, Hungary, Poland and Slovakia) falls outside the range observed in Western Europe while the employment rates among better educated social groups reach or approach the Western level (with the exception of Poles with upper secondary qualifications). The loss of employment started years before the collapse of communism and continues to the present day. While in Western OECD countries the employment position of the low-educated showed some improvement *during the second half of the nineties*, a two-digit decline in the employment rate was experienced in a number of countries in the Eastern region. (Hungary, where the big decline had taken place a few years before, was not among them.) The gap has further widened *since the turn of the millennium*: between 2001 and 2004 the overall OECD employment rate among 25–64 year olds with primary education (ISCED 0–2) increased from 57 to 61 per cent, while it decreased from 47 to 43 per cent in the Czech Republic, from 41 to 37 per cent in Poland and from 30 to 23 per cent in Slovakia (OECD, 2006, Table A8.1).

*c)* Although the Roma population is especially badly affected by the labour market exclusion of unskilled people — aggravated by discrimination, — the issue cannot be regarded as a "Roma problem". Estimates based on KEMÉNY, JANKY & LENGYEL, 2003, pp. 18 and 105 and LFS data suggest that among the working age *jobless* population with 0–8 years of education at most 30–40 per cent of men and less than 30 per cent of women are of Roma ethnicity.

The fact that the low-educated population of Hungary show evidence of basic skills well below the European average (OECD, 2000) does not mean that employment policy is condemned to inaction until the situation improves. Basic skills are important but they do not determine employment: the national employment rates vary in a wide range at all levels of skills, including the current Hungarian level.[2] Albeit within limits it is possible to improve the labour market position of people with low educational attainment and basic skills. It is not only not inevitable but also unacceptable to wait for education reform to bring a solution to the employment problem in ten or twenty years' time. Admittedly, there are handicaps, given institutional and economic arrangements, that cannot be changed. Hungary has a relatively small traditional self-employment and family-based smallholder sector, which is a major source of jobs for unskilled labour in other countries at a comparable level of development (MALONEY, 2004). The convergence of wages towards the EU-level curtails

[2] A strong correlation can be observed between test results assessing the literacy skills of people with basic education (OECD, 2000) and employment rates among this population (OECD, 2003): a one per cent increase in the former measure predicts an almost one per cent increase in the latter in the 18 countries where both measures are available. There are, at the same time, substantial differences (10–20 percentage points) in employment levels between countries that display almost identical test results, related to other factors (economic structure, wages, welfare programmes and labour policies).

Hungary's competitiveness in the world of low-tech labour-intensive technologies. A radical reform of the welfare system would carry unpredictable political risks. These constraints, however, still leave room for improving the employment chances of people with less than upper secondary qualifications and for making work more attractive.

The declining trend in the number of unskilled jobs must slow down and mechanisms aiding the matching of vacancies and job seekers must be made more efficient.

To break the "low equilibrium" that has evolved, the declining trend in the number of unskilled jobs must slow down and mechanisms aiding the matching of vacancies with job seekers must be made more efficient. The supply of vacant positions can increase (or its decline slow down) only if unemployment exerts a stronger pressure on the costs of unskilled labour. This process can be furthered by encouraging job search, revising welfare programmes that encourage exit from the labour market, removing or relaxing constraints of wage adjustment (the minimum wage, pay scales, sector-level collective bargaining) and by decreasing tax burdens on low wages. To improve matching efficiency, the features of demanded and supplied jobs need to converge and the fixed costs of working must be reduced.

## ■ DIAGNOSIS

The minimum wage policy pursued since 2001 has had an adverse effect on the employment chances of unskilled workers.

1. The minimum wage policy pursued since 2001 (a huge hike in 2001–2002 followed by repeated attempts at maintaining that level) has had an adverse effect on the employment chances of unskilled workers. Studies looking at the impact of the 2001–2002 minimum wage hikes indicated a significant negative employment effect in the private sector, especially in small businesses. Low wage workers' chances of retaining their jobs diminished while the exit-to-job probablities of the low wage unemployed fell (KERTESI & KÖLLŐ, 2004). Moreover, the wage increases had negative net impact on the central budget (HALPERN, KOREN, KŐRÖSI & VINCZE, 2004) and achieved only minor improvement in equity (SZABÓ, 2007). The reason is that people earning the minimum wage are typically not the primary earners of their households; they do not maintain families and do not fall under the lowest income category.[3]

Current minimum wage policies are strongly affected by the belief that a substantial share of people reported to earn the minimum wage receive further cash payments. Indeed, out of all workers on the minimum wage — who have made up roughly a tenth of the total workforce in the past three or four years — about 10 per cent are entrepreneurs, company managers or freelance professionals (lawyers, architects, artists, agents and so on), and a further

[3] Since it is a frequent argument, even among economists, that the employment rate did not decrease in 2001–2002, it should be noted here that the cited studies investigated whether employment had decreased relative to the level *expected without increases in the minimum wage* rather than whether it had fallen relative to the level in the period preceding the minimum wage increases.

group of about the same size are employed in various high wage jobs. However, the majority of the minimum wage workers are actually employed in low wage jobs — as unskilled labourers, material handlers, guards, doorkeepers, cleaners or manual labourers in commerce and light industry — and are highly likely to genuinely earn the minimum wage. While increases in the level of minimum wage can reduce tax evasion among "fake minimum wage earners," this policy has a negative effect on the employment prospects of genuine minimum wage workers.[4]

The introduction of a minimum contribution base has had similar consequences. Current regulations specify that social security contributions are to be paid on a sum of at least twice the minimum wage but a business may be granted an exemption. The regulation in this form is poorly targeted. Specifying a minimum contribution base means taxing expected incomes, which, however, are a function of several factors, such as the employer's economic sector, the amount of capital assets and skills of the employees. A universal minimum contribution base overtaxes some businesses or forces them to go through the exemption procedure every year while it sets an easy to bear burden for others even if they hide some of their incomes. A system of taxation based on expected income (presumptive taxation) requires defining differentiated minimum contributions adjusted to business attributes, which cannot be directly produced by the authorities but must be based on the results of econometric analyses of carefully specified production functions. Presumptive taxation can be applied in a discretionary way without automatically enforcing tax payment after estimated income. This approach is followed by the Italian practice of 'analisi di settore': if actual income falls short of expected income the entrepreneur faces a highly increased risk of independent checks.

The unemployment assistance system is dominated by programmes supporting absence from the labour market.

2. The unemployment assistance system is dominated by programmes supporting exit from the labour market. It is not the unemployment benefit but family support payments, social assistance and — even at a fairly young age — early retirement pension schemes (especially disability pension) that constitute the main sources of personal income for the unskilled jobless population. This is shown in *Table 11.2* for the age cohorts where young primary school pupils' parents are found (25–44 years of age).

*The decision to retire before the statutory retirement age* is greatly influenced by an individual's labour market prospects (CSERES-GERGELY, 2008), and the number of early pension or endowment claims is expected to rise because of the growing number of people with no old-age pension entitlements (AUGUSZTINOVICS & KÖLLŐ, 2007).

The child care system — participation in which is once again greatly influenced by employment prospects (BÁLINT & KÖLLŐ, 2008) — has been char-

[4] At the same time, an — only theoretically conceivable — total whitening of wages promises a very modest increase in budget revenues (far less than 1 percent of GDP) (KÖLLŐ, 2008).

[TABLE 11.2] THE DISTRIBUTION OF MEN AND WOMEN WITH 0–8 YEARS OF SCHOOLING AGED 25–44 ACCORDING TO EMPLOYMENT STATUS AND MAJOR INCOME TRANSFERS (2003–2005)

| | WOMEN | | MEN | |
|---|---|---|---|---|
| | age 25–34 | age 35–44 | age 25–34 | age 35–44 |
| Employed[a] | 34.4 | 47.8 | 63.7 | 60.0 |
| On unemployment benefit | 1.8 | 2.8 | 2.9 | 2.7 |
| On social assistance[b] | 6.6 | 6.6 | 8.7 | 9.5 |
| On maternity benefit | 34.3 | 11.1 | 0.6 | 0.8 |
| On disability pension or endowment | 5.8 | 14.1 | 6.7 | 13.6 |
| None of the above transfers | 17.1 | 17.5 | 17.4 | 13.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

[a] People were classed as employed if they did at least one hour's paid work during the week preceding data collection. Those who received some kind of transfer while having a job are classed with people in jobs.
[b] Income support, regular social assistance, pre-pension unemployment benefit.
*Sample:* excluding full-time students. *Indicators:* unweighted three-year averages of weighted averages of data from quarterly survey waves.

[SOURCE] Labour Surveys, 2003–2005.

acterised by an extreme bias in favour of passive support. The OECD (2007) finds that Hungary is the member state with the highest expenditure — as a percentage of GDP per capita — of cash benefits per child. The Hungarian expenditure rate is three times as high as the OECD average, almost twice as high as the Austrian rate and one and a half times as high as the rate in Sweden. At the same time a very small portion of children under the age of three attend nursery school (similarly to children in Eastern and Southern Europe, Turkey and Mexico). This situation is reflected in employment figures. While the Hungarian female employment rate is only slightly below the OECD average, mothers of small children are less likely to have jobs in Hungary than in any other member state. The employment rate among mothers with children aged 0–2 years ranks the lowest and the rate among mothers with 3–5 year old children is the second lowest (after Slovakia). Hungary displays the widest gap between the employment rates among mothers with 0–2 year old children and mothers whose youngest children are 6–16 years of age.[5] Averaged over the past ten years, mothers exited the family support system after 4.7 years of paid maternal leave, in part due to the shortage of day nurseries (BÁLINT & KÖLLŐ, 2008).

Daily child care institutions allowing mothers to make their choice are admittedly expensive to maintain: the costs of maintaining one nursery place come to 125 thousand Hungarian forints a month. Its net costs are *substantially* lower, however, if the cash benefits claimed by non-employed mothers and the taxes foregone because of non-employment are taken into consideration. Also, fam-

[5] See Figures PF7.2, PF11.1, LMF2.1 and LMF2.2 in the OECD (2007) database.

ily day care facilities are a cheaper option than nursery schools.[6] It is suggested both by a calculation of costs with forgone gains included and by an international comparison that women's employment can be boosted without increasing the total expenditure on family support. SCHARLE (2007) estimates that by reallocating 0.1 per cent of GDP — which corresponds to one sixth of the maternity benefit bill in Hungary — to in-kind family support programmes (at the expense of cash benefits), an increase of 1.6 percentage points in the employment rate of women aged 25–54 is expected to be achieved as predicted by international trends.[7]

It is a widely documented fact that *the current support system for the long-term unemployed* (regular social assistance and public work schemes) is rather focused on the problem of having local community tasks fulfilled and assisting the poorest of households on an individual basis than on monitoring participants' work propensity or encouraging them to return to the labour market. The greatest share of local public work belongs to the world of casual labour; it does not develop the worker's human capital (SZALAI, 2007; KERTESI, 2006). The introduction of the system in 2000 was accompanied by a negligible increase in participants' job finding probability (GALASI & NAGY, 2002), and continued to remain low until recently (FIRLE & SZABÓ, 2007). Also, following the introduction of the programme, visits to the labour centres by the long-term unemployed has become more casual.

Participation in retraining programmes is infrequent among low-educated people both in an absolute and in a relative sense.

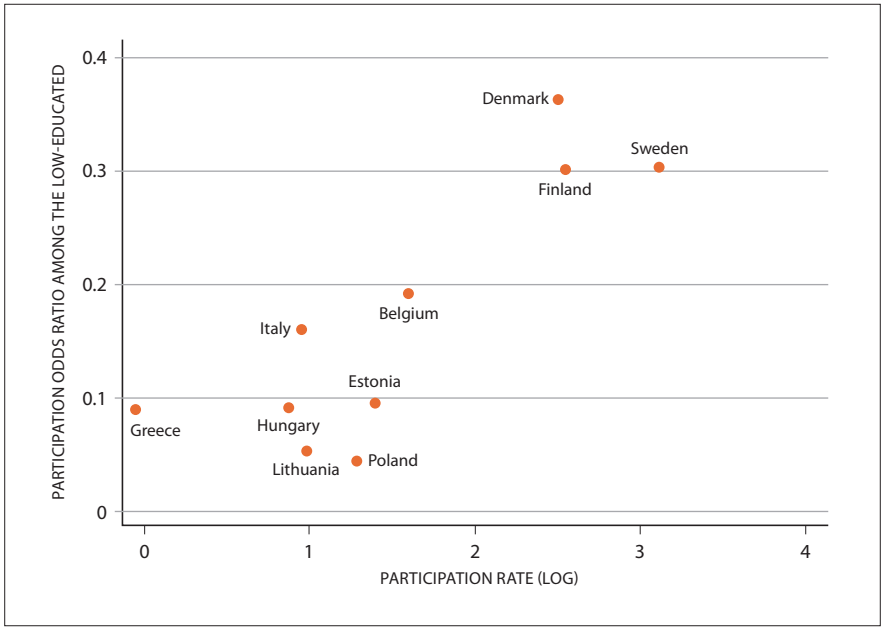
3. One of the factors greatly lowering the labour market chances of people with less than upper secondary education is that they do not possess the basic skills needed for adjustment to changing technology. The problem is aggravated by the fact that within the generally meagre participation in adult training in Hungary participation in retraining programmes is especially infrequent among the low-educated people both in an absolute and in a relative sense. *Figure 11.1* compares adult training data in some European countries based on HÁMORI (2007). It is clear from the data that in countries with low average participation rates the skilled-unskilled gap in participation is larger and this disadvantage is especially marked in the former socialist countries. (It should be noted in

[6] According to estimates for 2006, mothers on maternity benefits with their youngest children in their third year of life could expect to earn a gross monthly salary of 106 thousand forints. (The estimates were calculated based on pay scales and labour survey data with mothers' educational composition and a wage loss of about 10 per cent due to time off taken into consideration.) This salary has a total tax and contribution burden of 74 thousand forints. With this sum and the 26 thousand forint maternity benefit deducted, the net cost of maintaining a nursery place comes to only 25 thousand forints a month. It is, in fact, likely to be even lower considering that mothers giving up maternity benefit for work are likely to be high earners. (The calculations are based on a default case with no fees, tax credits or maternity benefit received while working.) By a similar formula for *family day care places* with a maintenance cost of 58 thousand forints a month, a mother's employment earns 16 thousand forints net *revenue* for the budget.

[7] It is important to recognise that a strong positive correlation has by now emerged between women's employment and fertility in OECD countries: a long maternity leave is not a *necessary* condition of population growth.

[FIGURE 11.1]
Participation in adult training and participation rate among the low-educated in ten European countries at the turn of the millennium

[SOURCE] European Labour Surveys 1999, 2001, 2003.




*Note* The horizontal axis shows the participation rate on a logarithmic scale. A value of 1 corresponds to a participation rate of 2.7 per cent, a value of 2 to a rate of 7.4 per cent and a value of 3 to a rate of 20 per cent. The logarithmic scale was adopted to reduce the very large range of data points. The vertical axis displays the participation odds ratio among the low-educated population (ISCED Levels 0–2) relative to university or college graduates matched for gender, age and labour market status. The dataset covers the non-student population over the age of 27 and shows the proportion of people participating in any kind of training during the four weeks preceding data collection. The plot was drawn based on average values for 1999, 2001 and 2003. See HÁMORI (2007) for details.

evaluating the data that the absence of basic skills has graver consequences in Hungary than in Italy or Greece, where self-employment is far more extensive and there is a larger micro-business sector.) Limited involvement in retraining is likely to have an adverse effect on the labour market chances of the low-educated groups while it seems to be true that *currently available* adult training programmes are hardly suitable for improving the employability of unskilled workers.

The direction of changes in the supply of training programmes is difficult to predict. The New Hungary Development Plan [Támop 3.2–3.4 (Improving adjustment skills), TIOP 3.1–3.4 (Social infrastructure development)] reflect the realisation that keeping up with technological development demands appropriate basic skills which low-educated groups do not fully possess. For this reason comprehensive education programmes aimed at improving literacy, computer literacy and social skills are of outstanding importance. Given a wide range of unranked priorities, however, there is no guarantee that the development of the necessary basic skills will carry sufficient weight in the programmes (this concern is mainly relevant to Támop 3.2). The Social Renewal Operational Programme (Támop) undertakes to support a wide range of corporate

retraining and narrow professional training schemes. The task of developing the contents of training will essentially be delegated to the local chambers of commerce and, deviating from the objective named in the title *Improving adjustment skills*, practical training linked to specific technologies will be given preference.

The main factors behind the disproportionately high incidence of unemployment among the population having 0–8 years of primary education include poor quality of vocational training.

4. The high incidence of unemployment among the population having primary education is partly explained by the poor quality of vocational training, deterioration of the acquired skills and a resulting trend of crowding out of primary degree holders by vocationally trained workers even in the simplest jobs (see, for instance, KERTESI & VARGA, 2005; KÉZDI & VARGA, 2007 for a discussion of the devaluation of vocational qualifications and its consequences).

Local crises cannot be overcome without a more pronounced concentration of funds.

5. In Hungary most micro-regions without sizeable urban centres are faced with persistent local crises that cannot be overcome without substantial government support, which in turn calls for a more pronounced concentration of funds. There are not many micro-regions with exceptionally acute problems: fewer than ten areas have been trapped in a crisis situation since the start of the regime change. In the villages of these micro-regions employment and quality schooling of the local population are greatly hampered by the high costs of accessing the labour markets of towns or of commuting to better schools (KERTESI, 2000; BARTUS, 2004).

Public expenditures on employment policy are not sufficiently selective, carrying the risks of dissipated resources and groups in need of support not having access to sufficient funds.

6. Public expenditures on employment policy are not sufficiently selective and target activities and worker groups are defined extremely broadly. This policy carries the risks of dissipated resources, a substantial deadweight loss and groups in need of support not having access to sufficient funds.

Hungary operates a wide range of payroll subsidy programmes (in contradiction to the spirit of EU directives). Payroll subsidies may be claimed as wage cost subsidies offered to special purpose labour market programmes; as part of regional investment support and employment support schemes; as part of job creation subsidy programmes; in the form of training and travel subsidies; for public work programmes and casual work contracts; on grounds of job retention "to avoid layoffs [even by one — *J. K.*] because of economic hardships"; in the framework of the Start, Start-plus and Start-extra schemes; and in the form of tax allowances (exemption from paying the flat-rate health care contribution, tax credit on the hiring of registered unemployed, minimum wage free of personal income tax).

A wide range of claimants may be eligible; in some cases there are no restrictions on eligibility at all. The various programmes are open to workers starting their careers; "people at risk of losing their jobs"; those who "are at risk of losing their jobs unless they undertake retraining"; "workers affected by job losses"; registered jobseekers; the long-term unemployed; those returning from maternity leave; workers over the age of 45 and those workers over

the age of 50 who are employed in public work programmes in health, social, cultural, educational or environmental services.

*The support is usually given for a relatively short period of time (one year) but often on condition of long-term employment or some other restrictions, which may curb misuse but have a negative effect on flexibility.*[8]

Hungarian support programmes have little success in implementing the principle that demand side support is only justified in two cases: if the support leads to job creating investments that generate significant positive externalities; or if the support helps remove or prevent a market barrier or failure. The former consideration may justify subsidies for a few outstanding job creating investments. The latter condition primarily constitutes a justification for assisting low-educated workers. This principle explains that while general job-creation and job-preservation subsidies are seen by most economists (and the European Union) as having a distorting effect, support for unskilled workers have been repeatedly proposed even in situations far less critical than the current one in Central and Eastern Europe (AKERLOF, ROSE, YELLEN & HESSENIUS, 1991; PHELPS, 1994; SNOWER, 1994; KATZ, 1996; NICKELL & BELL, 1996).

## ■ SUGGESTIONS

The government should resist pressures to increase the ratio of the minimum wage to the average wage.

1. We propose that the government should resist pressures to increase the *ratio of the minimum wage to the average wage* while making clear first, that this policy is not motivated by employers' interests but serves to improve the labour market chances of unskilled workers, whose interests are only marginally represented by trade unions. Second, it is important to make clear that the minimum wage is an inefficient, poorly targeted tool in social policy. Third, it is important to emphasise that the minimum wage to average wage ratio cannot be considered low in Hungary in international comparison and that — contrary to the frequently cited argument — Hungary has not signed any agreement to raise this ratio.[9]

[8] The quotes are translations of excerpts from the website of the Hungarian Ministry of Social Affairs and Labour: www.szmm.gov.hu/download.php?ctag=download&docID=11798

[9] Hungary signed the European Social Charter of 1961 as renewed in 1996, where paragraph 1 of Article 4 of Part II states that the government recognises workers' right to wages securing a decent living for the workers and their families. In 1977 a *recommendation* of a minimum wage to average wage ratio of 68 per cent was made by the nine-member *Committee of Independent Experts*, which had been set up to monitor adherence to the Charter. The benchmark was later modified to 60 per cent by the same committee. Hungary did not sign any documents requiring signatory parties to attain this ratio. The recommendation of the expert committee has not been adopted by any EU member state: the minimum wage to average wage ratios range from 30 to 50 per cent. In 2004 Hungary ranked seventh in a ranking by the minimum wage to average wage ratio.

The regulations concerning the minimum contribution base and related individually evaluated allowances need to be revised.

2. The regulations concerning the minimum contribution base and related individually evaluated allowances need to be revised. If the government chooses this route to fighting concealed wages, a set of differentiated minimum contribution bases strongly correlating with reasonably expected productivity should be defined. The probability of individual inspection — with reversed burden of proof — should be greatly increased among businesses staying below the limits but companies should not be forced to pay contributions on the given limits. Business chambers and trade unions should be involved in the process following a preparatory stage of applied research guided by professional considerations.

The system of employment subsidies should be reformed.

3. We propose that the system of employment *subsidies* should be reformed and resources should be directed towards areas where the creation of new jobs is expected to be accompanied by significant positive externalities and at those segments of the market where market adjustment is hampered by institutional barriers and high transaction costs. Support programmes can help alleviate insufficient demand caused by minimum wage regulation and provide assistance for workers who expect lower than usual wages due either to causes beyond their control or to justifiable choices (people with reduced work capability or those returning to the labour market after years of child rearing). The funds needed for support programmes can be created by eliminating explicit and implicit wage subsidies beyond the above range of investments and worker groups, which is a desirable step in terms of both efficiency and equity.

A programme is needed to suppress disability pension claims motivated by poor employment chances.

4. To suppress *disability pension claims* motivated by poor employment chances we propose the launch of a programme based on the principles of the British *Pathways to Work* initiative offering a combination of rehabilitation services, job search support, modest financial assistance in entering employment and tests of the willingness to work as part of the disability screening procedure. [See SCHARLE (2008) for a discussion of the programme.] To implement the programme a network of 50–100 labour centre "personal advisors" should be trained and a set of labour centres should be designated and prepared for the provision of special services. Taking the time needed for training trainers abroad into account, the programme can be launched in three or four years' time. Operational programme funds allocated for rehabilitation and the resources allocated for the development of the Hungarian Employment Service can cover the costs of implementing a programme of this kind without a need for additional resources.

The system of family support should be restructured in an effort to help mothers return to work.

5. The system of family support should be restructured and the daily child care institution network should be expanded in an effort to help mothers return to work. Cash benefits — possibly of an increased rate — should continue to be available to mothers staying at home for up to two years after childbirth, after which period subsidies helping parents find employment and return to work

should be dominant. These subsidies could include allowances in support of part-time employment and travelling to work up to the youngest child's third birthday, vouchers compensating employers for absences (up to a pre-defined limit) and individual support helping families gain access to child care institutions. A shift towards active support (i.e. programmes enhancing employability and encouraging employment) is also warranted even in the case of families in an unfavourable labour market position.[10]

Research to lay the foundations of a reform of the local welfare system.

6. The *local welfare system* should be reformed with the objective of creating a programme efficiently fulfilling the task of reintegration. The reform, however, needs to be preceded by research as currently no data is available at all on which a sensible policy could be grounded. Since regular social assistance is a means-tested transfer, it is possible to match social assistance programme participants with non-participants of similar qualifications and labour market experiences but slightly different financial position, and compare the groups to obtain a reliable assessment of the effects of welfare and public employment services. A longitudinal survey using this method is an essential first step before any reform measures are implemented since regular social assistance and public work schemes constitute important sources of income for the poor, especially in settlements isolated from the labour market. The survey would cost 30–50 million Hungarian forints.

A target should be set at least to double the currently less than 0.1 participation odds ratio among the low-educated population by 2013 and to achieve a steady increase in the share of training programmes focusing on the development of required basic skills.

7. We propose that the Managing Authority of the Human Resources Development Operational Programme should monitor and regularly evaluate independent (LFS) data to assess the disadvantage of people with less than upper secondary education in participating in retraining programmes. Also, the composition of training programmes should be analysed on the basis of data provided by the Hungarian Employment Service. A target should be set at least to double the currently less than 0.1 participation odds ratio of the low-educated population by 2013 (thus approaching, by Western European comparison, the rather low rates observed in Italy and Belgium) and to achieve a steady increase in the share of training programmes focusing on the development of basic skills. Appropriate training programmes cannot be reasonably implemented without analysing international experiences or making provision for training trainers. Course development programmes should therefore be subsidised with the aim of assimilating and adopting successful foreign practices. It is further essential to conduct regular and professional impact evaluations of retraining projects to aid the selection of the best programmes.

[10] 2–3 per cent of people participating in the family support programme are registered as unemployed at labour centres while over 10 per cent are unemployed and almost 40 per cent are inactive when they leave the programme. Moreover, an unknown but not negligible share of these people are likely to remain inactive or unemployed for an extended period.

Geographical units in need of targeted support should be defined much more narrowly, with reference to much stricter criteria than is the case at present.

8. A resolution to the most critical *local crises* calls for far higher financial support than has so far been allocated for the purpose. To be able to fund comprehensive crisis resolution programmes, geographical units in need of targeted support should be defined much more narrowly, with reference to much stricter criteria than is the case at present. The definitions must make it clear that what is needed is *exceptional* support for small regions in *exceptionally* desperate positions.
*a)* In addition to locally initiated low-budget pilot programmes,[11] large-scale infrastructural investments and training allocations are needed (within the targets specified by the operational programmes of social renewal (TÁMOP), social infrastructure (TIOP), and transport (KÖZOP) and regional development (ROP)).
*b)* In evaluating initiatives aimed at alleviating transport bottlenecks preference should be given to developments facilitating travel to work from villages to the urban centres of neighbouring micro-regions (centres other than the region's own capital city).
*c)* In the target regions of the support programmes it is justifiable to extend the special status of the subsidies municipalities *("settlements facing hardships for no fault of their own")* through to the end of the programme regardless of changes in their financial circumstances during the program.

To attain the objectives of Employment policy it is essential to improve the quality of vocational training.

9. To attain the objectives of employment policy it is essential to improve the quality of vocational training, which is a prerequisite to stopping the crowding out process that deprives the unskilled population of a great number of job opportunities. This issue is discussed in Chapter 4.

## ■ COSTS, BENEFITS, LINKS TO OTHER PROGRAMMES

The measure with the most significant financial needs is the expansion and maintenance of the child care institution network. A smaller one-time payment is required for setting up the "Pathways to work" programme and for defining retraining programmes of basic skills development. The financing of the remaining measures (and part of the family support programme, as well) proposed here can essentially rely on a reallocation of resources. This may give rise to conflicts since reallocation involves depriving groups in lesser need of the support that they may see as their acquired right and limiting state support distributed on grounds of job preservation and creation. However, efforts

[11] As an illustration of differences in scale consider the 0.5 billion forint (almost 2 million Euro) budget of the Cserehát Programme (Hungarian Ministry of Social Affairs and UNDP) compared to the 156 million forint (about 600 thousand Euro) budget of the "Local school association project fund" programme, which is just about enough to build a villa in an elegant district of Budapest.

to reconcile work and child rearing, to reduce disability pension claims not related to health reasons , and to help groups excluded or staying away from society to want and be able to return to "the world of work" are likely to be met with broad public support.

The suggestions made in this chapter are closely related to proposals described in other chapters of this volume. The reproduction of skill disadvantages hampering employment can be prevented by improving the standards of primary and vocational training schools (Chapters 2 and 4). Programmes supporting early years development (Chapter 1) and measures restraining segregation (Chapter 5) are intended to mitigate the adverse effects of parental unemployment on the children.

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# 12 The effects of demographic change on the public education budget

[Judit Lannert]

The Round Table for Education and Child Opportunities has proposed a number of programmes that require resources for their funding. There are ways to make some savings in the Hungarian public education system, which can be used for this purpose. Public education is burdened with serious problems of efficiency, productivity and equity. There are more teachers to each pupil than in most European countries (in Hungary the number of pupils per teacher is lower in both primary and secondary education than the European average) however, as shown by the results of the PISA surveys (2000, 2003, 2006), in terms of pupils' reading comprehension and mathematical skills Hungary ranks lower than some countries with higher pupil to teacher ratios.

Efficiency problems are therefore primarily manifest in that education continues to display moderate effectiveness while the pupil to teacher ratio declines. What this means is that the increase in expenditure is not accompanied by an improvement in education quality, i.e., the system is wasteful. It seems, then, that the public education system offers opportunities to save costs and the demographic change predicted for the next few years may free further resources. The most important efficiency problems in education identified by experts include the fragmented structure of education management, the "soft budget constraints" characterising education funding, the artificially sustained need for a large workforce in public education, the inflexibility of human resource management, the absence of achievement benchmarks and the absence of learning support programmes creating the conditions for lifelong learning.

Reform proposals aimed at enhancing the efficiency of public education should therefore focus on these areas (MEDGYESI, 2006). With current financing mechanisms (per-student formula funding) remaining unchanged, any released resources necessarily entail the withdrawal of those resources, and therefore the use of these savings for the purposes of public education requires special authorisation.

In what follows, we look at the reserves found in the public education system and estimate their amount. Savings may be made in a number of ways. First, saving opportunities are offered by the decline in pupil numbers. Second, efficiency may be improved by bringing per-pupil spending closer to the level observed in developed countries. Finally, changes to the financing mechanism — such as the introduction of the new formula in 2007 — can put an end to

wasteful funds management. Costs are increased, however, by some of the new components of the system, such as the school year dedicated to foreign language learning. These will be taken into account in considering saving opportunities.[1]

## ■ DIAGNOSIS

In recent years Hungary has typically been characterised by unfavourable population trends. Relative to 2005 a decline of about 10 percentage points is expected among the school-age population by 2015.

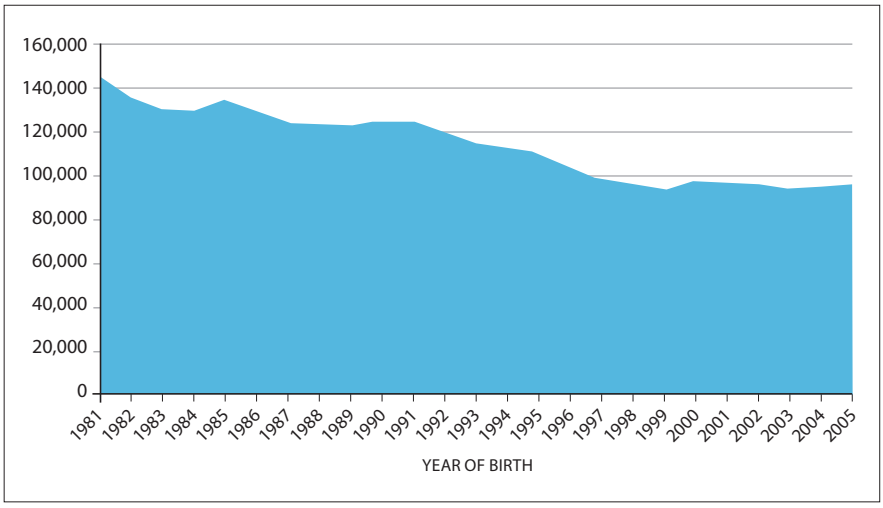
1. *Population trends.* In recent years Hungary has typically been characterised by unfavourable population trends, which had their origins in the more distant past. Relative to 2005, a decline of about 10 percentage points is expected among the school-age population by 2015. The decrease in mortality and in the number of deaths has not counterbalanced the decline in fertility and the consequent fall in the number of births. The 1990s were characterised by a low and annually declining number of live births. While during the period between 1990 and 1992 an average of 125 thousand children were born a year, the corresponding figure was 115 thousand for the period from 1993 to 1995 and less than 100 thousand for the second half of the decade (HCSO, 2002*a*). Demographic change took a more favourable direction commencing in 2000, when, for the first time since 1975, the number of births surpassed the previous year's figure. This has not, however, led to a spectacular reversal of previous trends: the number of births appears to remain stagnant. The earlier substantial decline in the number of births can be attributed to the fact that relatively populous cohorts gave birth to their children later than expected. At the time, an increase in the number of births was predicted for the middle of the nineties, mostly based on the expectation that the large number of people born in the seventies would reach child bearing age at that time. This event was, however, delayed since mothers now tend to give birth at a more advanced age (VUKOVICH, 2002).

The population trends observed in Hungary appear to be typical in an international context. A general population decline and population ageing are also being experienced by other European countries. It must be noted, however, that while decreasing fertility rates are observed not only in Hungary but also in current EU member countries as well as in accession states, mortality figures are substantially more encouraging in other countries than in Hungary (VUKOVICH, 2002). The observed decline in fertility also determines the size of the child population. The large cohorts born between 1974 and 1980 are now just about past higher education age and the succeeding cohorts are of steadily decreasing sizes *(Figure 12.1)*. In 2005 the population of 11–16 year old cohorts fluctuated around 120 thousand persons and the youngest school-age cohorts were of an even smaller size. The cohorts younger than school age

[1] This paper greatly relies on two background studies by Zoltán Hermann where the budgetary effects of declining child numbers and legislation changes are estimated using various models (HERMANN, 2007*a*, 2007*b*).

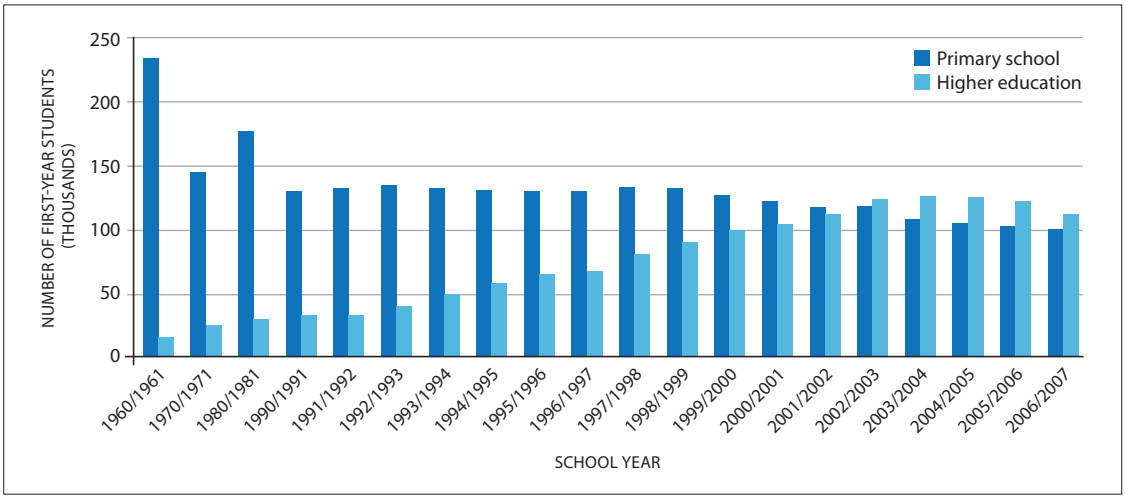
[FIGURE 12.1]
The size of the population under 25 years of age (as of January 1st, 2006, thousand persons)

[SOURCE] Hungarian Central Statistical Office (HCSO).




[FIGURE 12.2]
First year primary school pupils and first year undergraduates, 1960–2006

[SOURCE] Ministry of Education and Culture (2007).




(under the age of six) will not even reach the size of current school-age cohorts in the coming five years. There will be fewer than a hundred thousand children starting primary school, i.e., the school-age population is expected to continue to decline.

The magnitude of the decline and its impact on the education system as a whole are illustrated even more suggestively by comparing the number of first year primary school pupils and the number of students commencing higher education *(Figure 12.2)*.

A 15 per cent reduction is projected in the number of people aged 18 or under between 2000 and 2016.

Projections by the Institute of Demography indicate a 15 per cent reduction in the number of people aged 18 or under between 2000 and 2016. The declining trend observed up to 2007 among the population of 3–6 year olds and children of primary school age appears to be levelling out and stability or slight growth

is expected in the future. The decline of the secondary school age population (14–18 years) is predicted to persist right until 2016, by which time a decrease of 25 per cent is expected relative to 2001 *(Figure 12.3)*.

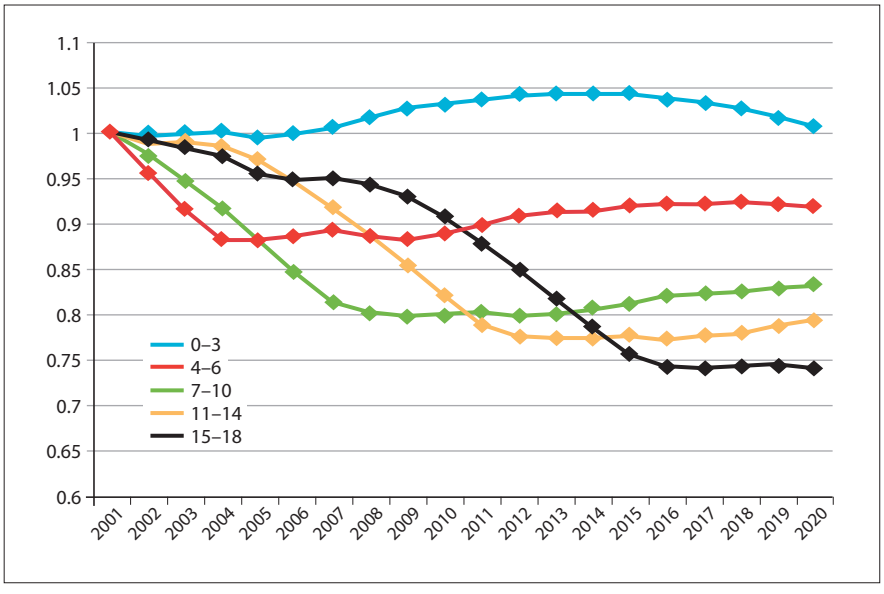
Demographic change displays very similar trends in countries neighbouring Hungary. In the Czech Republic, Slovakia and Poland, the population aged between 15 and 19 is projected by the OECD to decline by 30 per cent over the next ten years. These trends inevitably have a strong impact on the size of the school-age population and the organisation and funding of public education. The costs of education are more than likely to decrease in countries where a steep decline is expected in the number of young people over the next ten years. The declining number of children also offers an opportunity to increase educational spending per pupil and to raise participation rates by expanding the education system. Assuming constant per-pupil allocations and participation rates, a saving of about 15–20 per cent of current expenditure can be expected in these countries according to the OECD *(Figure 12.4)*.

According to the OECD a saving of about 15–20 per cent of current expenditure can be expected in countries where a steep decline is predicted in the number of young people over the next ten years.

2. *Saving opportunities offered by changes in pupil to teacher ratios.* Further resources can be released by bringing per-pupil teacher costs closer to the European average. In 2004, there were on average 15 pupils to every teacher in primary education across 19 countries in the European Union, while the corresponding ratio was 10 to 1 in Hungary. The gap is smaller at secondary level: on average there were 12 pupils to every teacher across EU countries and 11 in Hungary *(Figure 12.5)*.

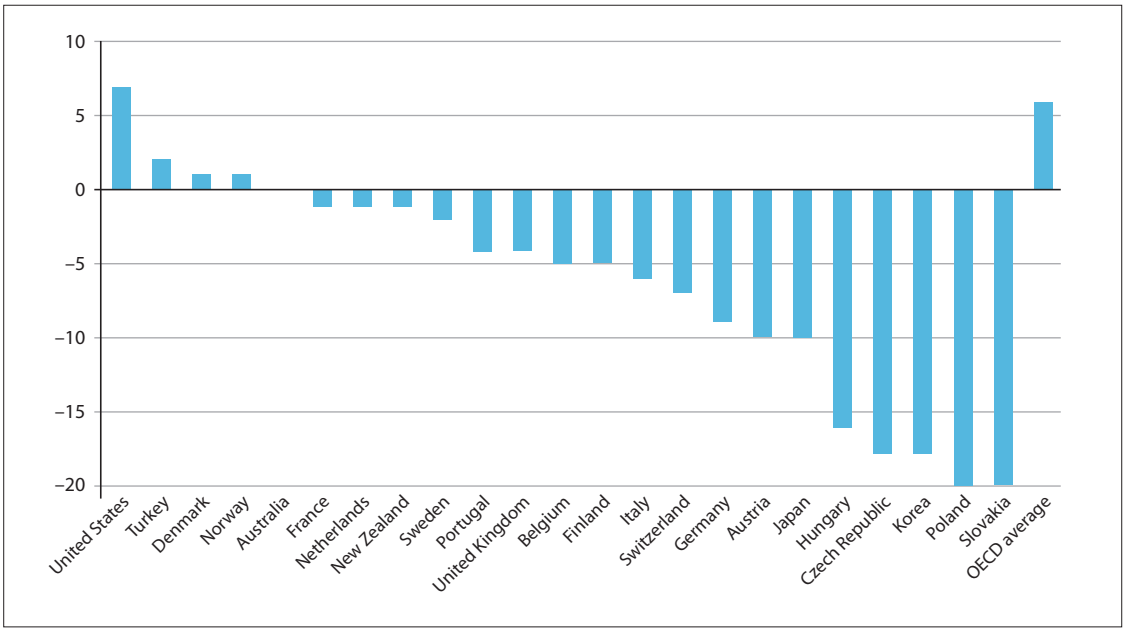
Substantial savings could be made in public education by bringing pupil to teacher ratios closer to the European Union average.

If the pupil to teacher ratio in Hungary was raised to approximate the average EU level, fewer teachers would be needed. In 2004 130,749 teachers were



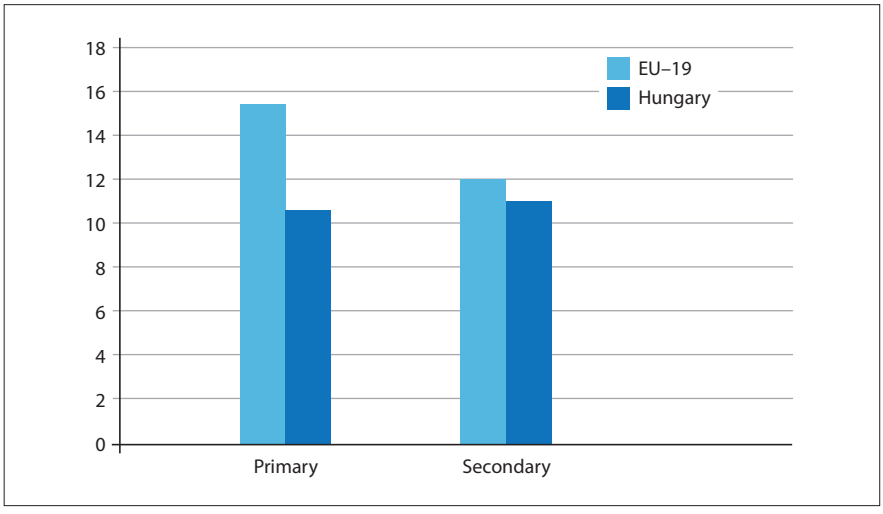

[FIGURE 12.3]
**Population size projection for children aged 0–18 by age cohort (2001 = 100)**

[SOURCE] László Hablicsek, Institute of Demography, Hungarian Central Statistical Office.




[FIGURE 12.4]
The expected effects of demographic change on the overall expenditure of educational institutions with current participation rate and per-pupil spending, 2005–2015 (2005 = 100)

[SOURCE] OECD (2006).




[FIGURE 12.5]
Number of pupils per teacher in primary and secondary education in Hungary and in the 19 EU countries, 2004

[SOURCE] OECD (2006).

employed in primary and secondary education in Hungary (HALÁSZ & LANNERT, 2006). Based on the population projection mentioned above,[2] if the range of services is assumed to remain constant, with the current pupil to teacher ratio 14 per cent fewer teachers would be needed in 2011 and 33 per cent fewer in 2015. If the ratio was raised to the EU average level observed in 2004, even

[2] 97 per cent of the projected sizes of the 7–14 year old and the 15–18 year old populations were multiplied by teaching staff/pupil ratios observed in primary and secondary education respectively.

[TABLE 12.1] ESTIMATED TEACHER WORKFORCE WITH CURRENT AND ADJUSTED PUPIL TO TEACHER RATIOS, 2011 AND 2015

| RATIO | 2004 | 2011 | 2015 | 2011/2004 | 2015/2004 |
|---|---|---|---|---|---|
| | Number of teachers | | | Percentage | |
| Current ratio (Hungary, 2004) | 130,749 | 113,071 | 85,564 | 86 | 67 |
| Adjusted ratio (EU–19, 2004) | 130,749 | 86,978 | 61,792 | 65 | 47 |

[SOURCE] Ministry of Education and HCSO Institute of Demography data.

greater savings would follow: 35 per cent fewer teachers would be needed in 2011 and 53 per cent fewer in 2015 *(Table 12.1)*.

The adjustment of pupil to teacher ratios may, of course, not be such a straightforward process. Firstly, changes in the share of secondary education programmes and various regulations may call for more teaching staff relative to the number of pupils than the EU average and secondly, given a tradition of wasteful resource management in the Hungarian education system, a simple adjustment will not necessarily lead to effective savings. The experience of recent years is that the decline in the number of children has not been accompanied by a decrease in the number of teachers.

The experience of recent years is that the decline in the number of children has not been accompanied by a decrease in the number of teachers.

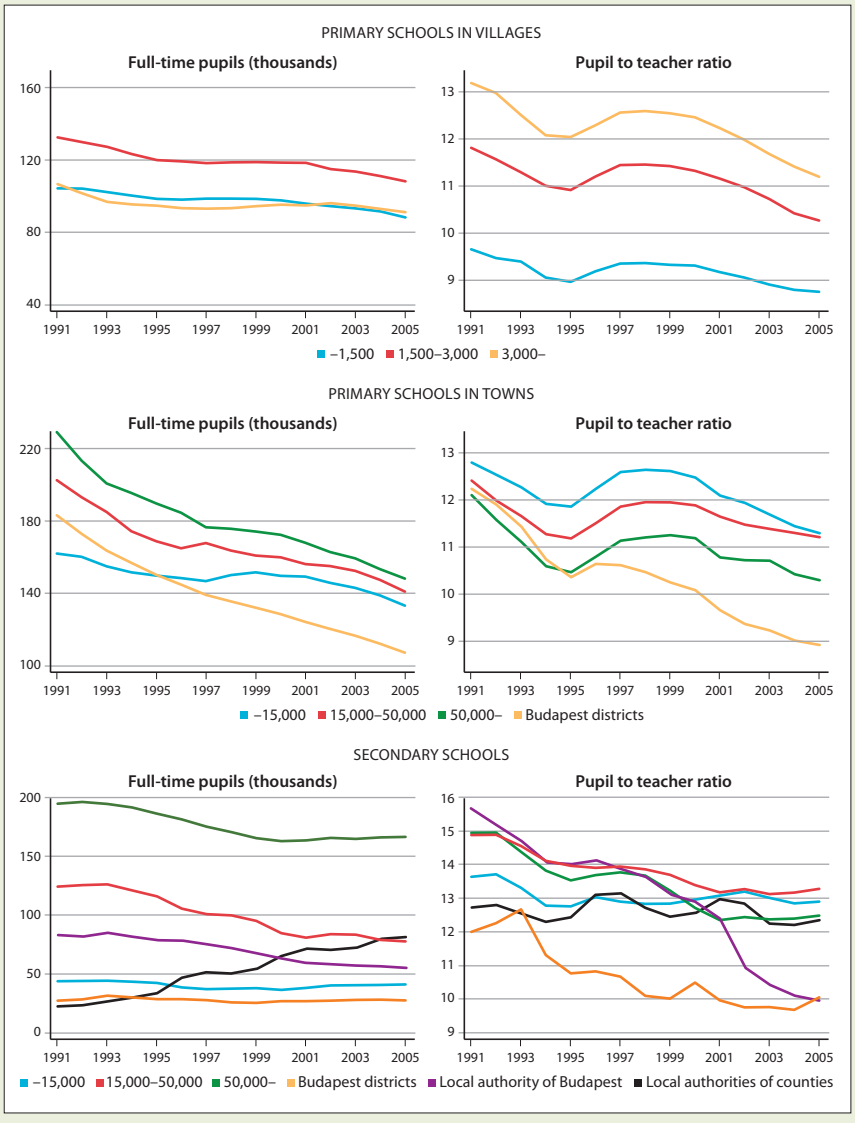
The analyses indicate that that the most important causes of the declining trend in pupil to teacher ratios are partly to be sought in processes independent of the issue of poor local adjustment to demographic change: in the domain of central education management and policies. Central legislation can

## PUPIL TO TEACHER RATIOS ARE JUST AS LOW IN BUDAPEST AS IN SMALL RURAL SETTLEMENTS

It is a wide-spread belief that village schools are the costliest of all because they have the lowest pupil to teacher ratios. This belief is in contradiction with the fact that the decline in pupil to teacher ratios has not been any greater in villages than in towns even though in small settlements typically maintaining a single school local authorities have far less room to adjust to falling pupil rolls. Moreover, although the smallest villages are characterised by a small number of pupils per teacher, the ratio was not any lower here than in Budapest primary schools in 2005 *(Figure 12.6)*.

Low pupil to teacher ratios in primary schools constitute at least as much of a problem for Budapest as for rural areas (HERMANN, 2007*a*). The steadily decreasing trend in pupil to teacher ratios is not necessarily the result of a homogenous process. The size of the teacher workforce was only partially adjusted to changes in pupil numbers between 1990 and 2006. Looking at primary schools we find that in the first half of the nineties the trend in the pupil to teacher ratio is primarily explained by a decline in class sizes while towards the end of the nineties the main cause appears to be an increase in the number of teachers per class (and presumably a decrease in the number of hours taught per teacher) (HERMANN, 2005).

[FIGURE 12.6]
Number of children enrolled at local government maintained kindergartens and primary schools, and pupil to teacher ratios at local government maintained kindergartens and schools, by administrative status of the settlement, 1991–2005




[SOURCE]
HERMANN (2007*a*). *Data sources:* local government database of the Győr-Moson-Sopron county regional authority of the Hungarian State Treasury and the T-STAR database of the Hungarian Central Statistical Office.

*Note*
Settlements classified according to administrative status in 2005. Only full-time pupils are included in pupil to teacher ratios. Overall pupil to teacher ratios for local government maintained kindergartens and primary schools also include the small number of kindergartens and schools maintained by county governments or (in 2005) multi-functional micro-region associations of local governments.

In secondary education the entire period was characterised by both a decline in class size and an increase in the teacher to class ratio, with the second process appearing to be dominant (Ibid.). At the settlement level the decline in pupil to teacher ratios shows *some* correlation with the decline in the child population but it was to some extent an independent process. Also, tracking the number of pupils enrolled at primary schools supports the hypothesis that the demographic change was not uniform across the country: there are both towns and villages where pupil numbers declined only slightly or not at all (HERMANN, 2007*a*).

provide incentives for the efficient use of resources in at least two ways: first, by regulating the number of statutory teaching hours and class sizes and second, by adjusting the system of central support. At the same time, regulations are rather lenient on the one hand (deviations are permitted if the necessary local resources are available) and have only indirect effects on the other. This leaves plenty of room for local arrangements.

In Hungary the overall share of central education grants relative to local education expenditure has not decreased in recent years. This may be explained by two factors: the central administration may have reduced real wages in the public sector or per-pupil allocations may have been increased to compensate for the effects of falling pupil numbers on local governments' budgets. With the exception of a few periods, these two processes appear to have been alternating in Hungary over the past one and a half decades: a wage decline was experienced during some periods and increased per-pupil central allocations compensated, at least to some degree, for the effects of shrinking child populations during other periods. The positive effects of the per-pupil funding system are therefore dampened by the continual adjustment of central governmental funding. A per-student formula funding system in principle constitutes a strong incentive to improve efficiency. This effect however is greatly weakened on the one hand by the high political costs of reducing the teacher workforce and the ineffective system of local government accountability, and, on the other, by the yearly adjustments to central allocations, which to some extent contribute to the unnecessarily large size of the teacher workforce. The only successful measure so far to stop the decline of pupil to teacher ratios temporarily involved substantial budget reductions, which is unlikely to be a viable, or desirable, option in the long term.

A per-student formula funding system encourages efficiency but the political costs of reducing the teacher workforce, the ineffective accountability requirements and the adjustments to central allocations have the opposite effect.

As of September 2007, central budget funding is allocated on the basis of expected teaching needs.

3. *The new formula funding scheme.* As of September 2007, central budget funding is allocated to educational institutions according to a new formula, based on a so-called public education performance indicator. The formula takes into account the regulations of the Public Education Act concerning class organisation (average class size, instruction time for students), teachers' statutory teaching hours per week and a coefficient of education programme type reflecting the cost requirements of programme types (kindergarten, primary school, secondary school).

The new system is applied from the 2007–2008 school year and introduced at grade one at kindergartens and grades one, five (start of lower secondary stage) and nine (start of upper secondary stage) at schools, thus applied for all grades by 2011. That is, as of September 2007, funding is allocated according to a formula which is essentially based on expected teaching needs (Appendix 3 to Budget Act 2007). Although the performance indicator[3] continues to be based on the number

[3] Based on the number of weekly instruction hours, i.e., the number of hours each class of pupils takes and the statutory number of hours each teacher teaches, it can be determined how many extra teachers are needed for each additional class of pupils at different levels and in different

The new performance indicator ensures that legislation and funding are far more directly related and government intentions are far more explicit. In the long term, however, the level of central financing is not fixed since the basic allocation remains open to unconstrained changes.

of pupils enrolled, it is tied to centrally specified teaching hours and class sizes. Legislation and funding are therefore far more directly related and government intentions are far more explicit. The formula specifies the level of class size, instruction hours and teaching staff which the central government wants to finance. Moreover, further revisions to the funding system can make the amount of central grants for local authorities more predictable. By replacing a wide range of current grants, the performance indicator will make it easier to predict and plan for even long-term costs. Further advantages are that local governments will be more motivated to adjust to changes and the system will permit central budget savings (which will not be automatically returned to the education budget). In the long term, however, the level of central financing is not fixed by the performance indicator since the basic allocation remains open to unconstrained changes.

In addition to the revision of the funding formula, other changes affecting educational costs were also introduced in 2007. The Public Education Act was amended in an effort to establish an institutional structure which takes into consideration economy of scale in service provision. Teachers statutory weekly teaching hours were raised by 8–10 per cent, small primary schools were mandatorily integrated into 8 or 12 year schools and restrictions were introduced on free access to second training programmes. Also, in line with the government's convergence programme, tighter regulations and funding rules have been implemented for basic level art education. Central funding entitlements are conditional on institution assessment and allocations are proportional to performance (THE GOVERNMENT OF THE REPUBLIC OF HUNGARY, 2006, p. 38). These measures — introduced in September 2007 — are expected to result in a saving of 7.6 billion Hungarian forints for the central budget in 2007 and a total of 34.2 billion forints in 2008.

The introduction of the new funding formula has lead to a reduction in the per-pupil central grants for most grades in 2007. Thanks to the change, the total amount of the basic grant was reduced by an annual rate of 6.5 per cent, that is, over 20 billion forints in the short term. A more significant decrease of around 15 per cent (almost 47 billion forints) is expected in the long term on account of the new formula (HERMANN, 2007*a*). Primary schools are more heavily affected by the reduction than secondary schools: if the funding formula

A more significant decrease of around 15 per cent (almost 47 billion forint) is expected in the long term on account of the new formula.

grades of education. A pre-determined grant is allocated to local governments and other education providers for each necessary class and, thus, each necessary teacher. This class-based grant is defined as a basic allocation (2.55 million HUF/annum per year) multiplied by a so-called programme type coefficient (the coefficient is probably included to allow for wage differences due to differences in qualification requirements between schools providing various levels of education). The number of necessary classes is calculated with reference to the actual number of pupils enrolled and an estimation of average class size.

Formally, $F_i = C_i(T/C)IA = P_i[1/(P/C)](T/C)IA$, where $F_i$ stands for the funding allocated to Local Government $i$; $C_i$ indicates the expected number of classes maintained by Local Government $i$ calculated as the ratio of the actual number of pupils ($P_i$) to the estimated average class size ($P/C$); $T/C$ stands for the estimated teacher to class ratio (which is the ratio of total class hours to total teaching hours); $I$ is the programme type coefficient; and $A$ stands for the basic allocation.

[TABLE 12.2] TEACHING STAFF CALCULATIONS

Estimated teaching staff in three scenarios: based on the funding formula of September 2007; with average class sizes as specified by the Public Education Act (PEA); and with previous statutory teaching hours

| STAFF SIZE | KINDERGARTEN | PRIMARY SCHOOL | SECONDARY EDUCATION |
|---|---|---|---|
| Estimated, September–December 2007 | | | |
| Based on the funding formula of September | 35,812 | 65,425 | 45,175 |
| With average class sizes as specified by PEA* | 30,509 | 56,802 | 43,217 |
| With previous statutory teaching hours | 35,812 | 70,463 | 49,692 |
| Actual, 2006 | | | |
| Total | 30,550 | 83,606 | 50,864 |
| Of which | | | |
| • on-site after school care | – | 11,811 | 68 |
| • special needs teacher | 237 | 1,956 | 243 |
| • teacher trainee or trainee supervisor | – | – | 4,880 |

*Assuming that the achievement indicator is calculated with reference to the average class sizes specified by PEA for each grade (class size specifications currently only apply to the first grade of each cycle of education (kindergarten, primary, lower secondary, upper secondary) and other grades tend to have smaller average class sizes). *Note:* Education levels are categorised according to grades for estimated teaching staff sizes (i.e., years 1–8 with primary schools and years 9–12 with secondary education) while for actual staff sizes in the case of 6 and 8 year grammar schools all teachers are counted for secondary education.

[SOURCE] HERMANN (2007*a*). *Data sources:* Central Budget Act, 2007, Public Education Act, Public Education Bureau (KIR) school database, 2006.

and the actual number of pupils are used to compute the estimated number of teachers and this figure is compared to the actual number of teachers, the difference will be greater for primary schools — even if after school child care teachers are discounted *(Table 12.2)*. In secondary education, especially in upper grades, the maintenance of a large teaching staff relative to primary school staffs is justified — as expressed by the formula — by the high number of approved instruction hours per week. In the foreseeable future the newly introduced funding formula is not expected to decrease significantly the total central funding allocated to kindergartens.

The most significant factor behind the decrease in central funding is the increase in statutory teaching hours. If the statutory teaching hours specified by the amendment of 2007 to the Public Education act are replaced by the previous statutory teaching hours in the new funding formula (Column 4, *Table 12.3*) and the results are compared to the funding calculated with the increased statutory teaching hours (Column 2, *Table 12.3*) and to previous allocations (Column 1, *Table 12.3*), it becomes clear that in the short term the new formula would have led to a slight increase in funding if the number of teaching hours had not been raised. With the number of teaching hours increased, however, central grants have been reduced.

In the short term the new formula would have led to a slight increase in funding if the number of teaching hours had not been raised. With the number of teaching hours increased, however, central grants have been reduced.

4. *The effects of the new regulations on costs*. So far, cost reducing factors have been considered: the decline in the child population, the option to raise the

[TABLE 12.3] BASIC CENTRAL PUBLIC EDUCATION GRANTS PER PUPIL AND IN TOTAL IN 2007
(calculated according to the formula of September 2007 with average class sizes as specified by the Public Education Act and with previous statutory teaching hours)

| EDUCATION LEVEL | YEAR | FUNDING, 2007 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | (1) January–August | | (2) September–December | | (3) Expected based on September–December[d] | | (4) September–December, with previous statutory teaching hours | |
| | | pupil/year (thousand forints) | year total (billion forints) | pupil/year (thousand forints) | year total (billion forints) | pupil/year (thousand forints) | year total (billion forints) | pupil/year (thousand forints) | year total (billion forints) |
| Kindergarten | 1.[a] | 199 | 0.07 | 172 | 0.06 | 172 | 0.06 | 173 | 0.06 |
| | 2–3.[a] | 199 | 9.62 | 203 | 9.79 | 172 | 8.32 | 203 | 9.82 |
| | 1.[b] | 199 | 0.91 | 207 | 0.94 | 207 | 0.94 | 207 | 0.94 |
| | 2–3.[b] | 199 | 54.70 | 243 | 66.79 | 207 | 56.77 | 243 | 66.80 |
| Primary | 1. | 204 | 20.11 | 146 | 14.37 | 146 | 14.37 | 153 | 15.05 |
| | 2–3. | 204 | 40.21 | 183 | 36.07 | 148 | 29.20 | 191 | 37.73 |
| | 4. | 204 | 21.03 | 222 | 22.84 | 169 | 17.40 | 232 | 23.94 |
| | 5. | 212 | 23.93 | 172 | 19.40 | 172 | 19.40 | 188 | 21.27 |
| | 6. | 212 | 23.73 | 198 | 22.12 | 172 | 19.23 | 217 | 24.26 |
| | 7–8. | 212 | 49.21 | 224 | 52.09 | 195 | 45.30 | 247 | 57.42 |
| Secondary (except years 9–10 of vocational training)[c] | 9. | 262 | 24.78 | 212 | 20.07 | 212 | 20.07 | 233 | 22.08 |
| | 10. | 262 | 23.40 | 229 | 20.41 | 212 | 18.95 | 251 | 22.45 |
| Vocational training, years 9–10[c] | 9. | 262 | 8.81 | 258 | 8.68 | 258 | 8.68 | 284 | 9.55 |
| | 10. | 262 | 6.92 | 258 | 6.82 | 258 | 6.82 | 284 | 7.50 |
| Secondary | 11–13. | 262 | 43.77 | 271 | 45.22 | 251 | 41.99 | 297 | 49.66 |
| Vocational training grades | 1. | 210 | 16.27 | 185 | 14.32 | 185 | 14.32 | 203 | 15.72 |
| | 2– | 210 | 11.95 | 199 | 11.33 | 185 | 10.52 | 218 | 12.43 |
| Total (billion forints) | | | | | | | | | |
| Kindergartens | | | 65.29 | | 77.58 | | 66.09 | | 77.62 |
| Primary schools | | | 178.23 | | 166.89 | | 144.90 | | 179.68 |
| Secondary schools | | | 135.90 | | 126.86 | | 121.36 | | 139.39 |

[a] At most 8 hours a day.
[b] More than 8 hours a day.
[c] In defining the performance indicator, the Budget Act uses the average class sizes specified by the Public Education Act for grade 9. For grades 9–10 of vocational training schools, these average class sizes are smaller than the ones given in the Budget Act. Our calculations use the figures of the Public Education Act.
[d] Assuming that the performance indicator is calculated with reference to the average class sizes specified by the Public Education Act for each grade of education (these class size specifications currently only apply to the first grade of each cycle of education and other years tend to have smaller average class sizes).

[SOURCE] HERMANN (2007*a*). *Data sources:* Central Budget Act, 2007, Public Education Act, Public Education KIR school database, 2006.

[TABLE 12.4] COST REDUCING AND COST INCREASING FACTORS

| COST REDUCING FACTORS | COST INCREASING FACTORS |
|---|---|
| Decline in child population | Lengthening education period, expansion of kindergarten attendance, foreign language year |
| Increasing efficiency bringing the student to teacher ratio closer to OECD levels | Inadequate local government funding and incentives |
| Institution mergers, school associations (regional integrated vocational training centres) | More human resources needed for special needs education and integration |
| Increasing statutory teaching hours | Increasing public sector wages |
| Funding based on performance indicator | Increasing supplementary grants for church schools |

ratio of pupils to teachers to approximate the European Union average and the introduction of new regulations encouraging cost reduction. The decline in the number of children, however, does not bring about an equivalent decrease in pupil numbers since cost reducing factors may be counterbalanced to a substantial extent by various education policies *(Table 12.4)*.

Studies reveal that local and especially central authorities seek to compensate for teacher workforce reducing measures — which tend to generate conflicts — by expanding educational services and implementing various programmes. The next sections look at the estimated effects of two of these cost increasing programmes on pupil numbers and, consequently, operating costs: the planned expansion of kindergarten services and the broader implementation of the foreign language year (year 9 dedicated to language learning, thus extending the period of formal schooling from 12 to 13 years). It should be noted that our estimates do not cover the total education expenditure of the central budget and not all policy changes are taken into account. What we undertake to achieve is to characterise the available room to manoeuvre for the public education budget as a function of the pupil numbers expected in the coming few years, assuming that the education funding system and the behaviour of actors in education remain constant.

5. *An estimation of the number of pupils in the future.* Our estimation of changes in the number of pupils is based on population projection data from the Institute of Demography of the Hungarian Statistical Office (available at the Institute's website: http://www.demografia.hu/Tudastar/nepelo.html) and on current education participation rates.[4] Pupil numbers are estimated in two scenarios: first, with participation rates held constant and second, with expanded

[4] Computations were made by Zoltán Hermann. In the default scenario with participation rates held constant, participation data from 2007 were used to calculate the participation rate in each grade for each cohort of pupils. The estimated number of pupils in a given grade in school year $t$ is therefore:

$$D_t^j = \sum_k \frac{D_{2007}^{j,k}}{N_{2007}^k} N_t^k,\ t = 2008, 2009, \ldots, 2020;\ k = 3, 4, \ldots, 25;$$

where $P$ stands for the number of pupils, $N$ is the size of the population, $t$ is the year of the first term of the school year, $j$ is the grade, and $k$ stands for the age of students.

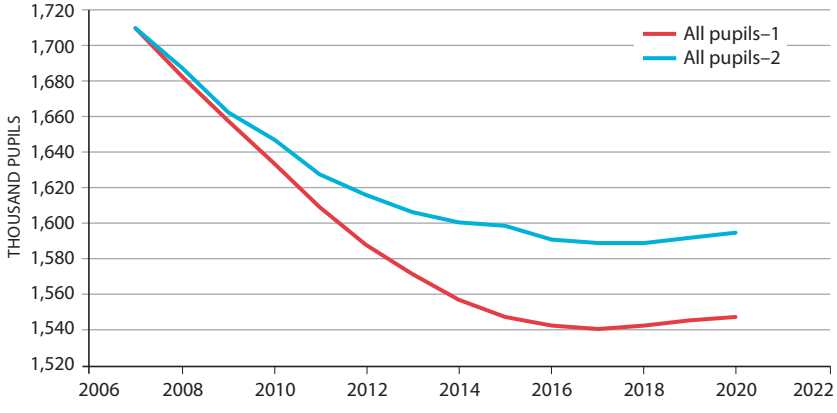
kindergarten attendance for children aged 3 to 6 and a substantial increase in the number of pupils taking the foreign language year before commencing secondary education. According to population projections a perceptible increase is expected in the number of kindergarten pupils even if there is no increase in the kindergarten participation rate. The foreign language year option was taken by 13 per cent of all year 9 pupils in 2007; the share of these pupils was 24 per cent among pupils attending academic secondary schools and 13 per cent among vocational secondary schools pupils. Our scenario of increased foreign language year participation is implemented in two versions: assuming doubled and tripled participation rates among academic and vocational secondary school pupils (50 and 75 per cent participation rates at academic schools, and 30 and 40 per cent rates at vocational secondary schools). On the whole, the number of pupils enrolled in public education is expected to show a substantial decline — in parallel with the decline in the child population — over the next ten years. In ten years' time pupil numbers may have decreased by almost as much as 170 thousand under current education conditions and a decline of more than 120 thousand is predicted if kindergarten attendance and the foreign language year programme are substantially expanded *(Figure 12.7)*.

Over the next ten years pupil numbers will decrease substantially, by almost 170 thousand, and a decline of more than 120 thousand is predicted if kindergarten attendance and the foreign language year programme are substantially expanded.

6. *An estimation of the public education operational expenditures of the central budget.* Provided that the funding formula is not modified, the education expenditures of the central budget will be significantly reduced over the next ten years due to the decline in pupil numbers and the gradual introduction of tighter class size regulations (HERMANN, 2007*b*). The greatest reduction is expected to be experienced over the next four or five years. One reason is that the one-off (but temporally elongated) effect of the changes to class size regula-

[FIGURE 12.7]
Expected number of pupils in primary and secondary education with 2007 participation rates held constant and with expanded kindergarten and foreign language year services, 2007–2020

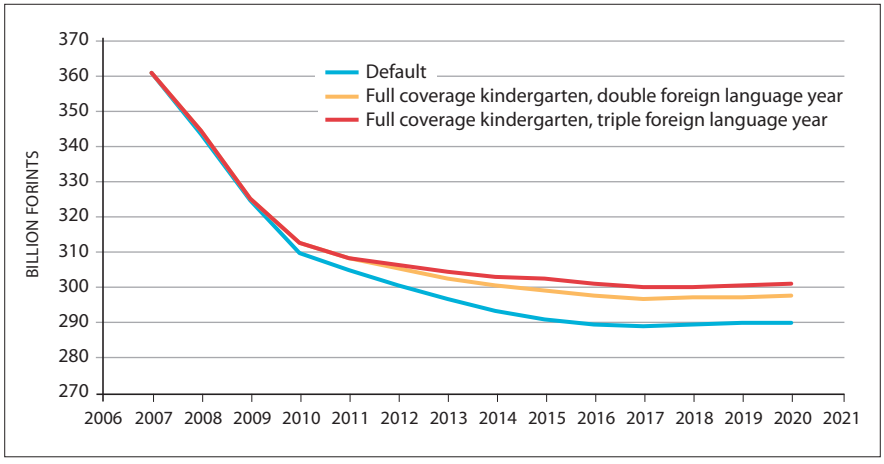
[SOURCE] HERMANN (2007*b*).




*All pupils-1:* Default scenario — the total number of pupils with participation rates held constant.
*All pupils-2:* The total number of pupils with full coverage kindergarten services and triple participation rates in the foreign language year programme. Years mark the start of the school year.

[FIGURE 12.8]
Expected basic central budget funding* and the supplementary funding for bilingual education with participation rates held constant for each cohort and with expanded kindergarten and foreign language year programmes by school year, 2007–2020 (billion forints)

[SOURCE] HERMANN (2007*b*).




*Funding for kindergarten services and school education services only — excluding after school child care, pupil accommodation, basic art education and vocational training grades.

tions will appear in this period. Furthermore, population projections forecast the greatest decline in pupil numbers for this period. After 2013, a period of stagnation and slow increase is expected. A significant expansion of kindergarten and foreign language year programmes can have a substantial impact on the extent of decrease in central expenditures. Firstly, both changes boost the number of children participating in public education with the size of the kindergarten and school age population held constant (in other words, a higher average number of years are spent at kindergarten and school). Secondly, the expansion of the foreign language year programme directly increases the total amount of the supplementary grant related to the provision of bilingual education services. The models show that while in the default scenario expenditure is predicted to decrease by about 60 billion forints in five years, a substantial expansion of kindergarten and foreign language year programmes is expected to reduce this gain by as much as 10–15 billion (see *Figure 12.8*).

Expenditure may decrease by about 60 billion forints in five years but an expansion of kindergarten and foreign language year programmes is expected to reduce this gain by up to 10–15 billion.

There are several cost affecting changes that have not been included in our estimations. The future number of pupils categorised as having special educational needs (SEN) is difficult to predict since it is dependent on the statutory definition of SEN and the availability of support programmes. The impact of school maintaining associations of local governments and Regional Integrated Vocational Training Centres (TISZK) has also been excluded because the available information does not even permit an estimation of whether they are likely to decrease or increase costs. Given current regulations, the supplementary grant allocated to church schools may increase if the reduction in central funding is accompanied by an increase in average local government expenditures. In 2007 about 6 per cent of all pupils were enrolled in church schools, which means that the total amount of the supplementary church grant may be increased by 6 per cent of the spending decline resulting from the reduc-

tion of the basic per-pupil grant. This would have a one-off increasing effect on central expenditures.

The estimates discussed here cannot be regarded as central educational expenditure projections for two reasons. Firstly, the effects of changes in pupil numbers on expenditure were estimated with reference to education participation rates in the last observed year, the expansion of kindergarten services and the foreign language year programme was calculated under arbitrary assumptions and supplementary funding schemes were not taken into consideration. Secondly, it must be remembered that budget decisions are also political decisions and as such are difficult to forecast. Notwithstanding these shortcomings, our estimates probably approximate the most conservative estimates of saving opportunities since in most cases supplementary funding expenditure is likely to decrease with the decline in pupil numbers and our expansion scenario assumes a very large scale (i.e., less likely) increase in pupil numbers.

In summary, the education system appears to offer opportunities for substantial savings even if new policies — supporting further expansion in public education services — are implemented. One reason is that the number of pupils will decline to a substantial extent over the next ten years and this effect is only partially mitigated by an expansion of kindergarten services and the foreign language year programme. This trend is expected to lead to a saving of about 50 billion Hungarian forints in the next five years. It remains an open question, however, whether this sum is to be used to improve budget balance or to enhance public education outcomes.

## ■ SUGGESTIONS

1. Savings due to the decline in the child population offer an opportunity to increase wages predictably in the medium term in an effort to improve the quality of teaching staff.[5] This is only possible, however, if the savings are made by the central budget. If most of the released resources appear in local government budgets and can be used without restrictions, previous experiences suggest that the teaching workforce will not be reduced, which means that there will be little chance of increasing wages to improve teacher quality.

2. The maintenance of an assessment and evaluation system calls for robust and reliable financial resources, which can also be secured from the savings.[6] Although the 2007 budget allocated almost 300 million forints to the Education Department for this purpose, the programme struggles with insecure resources

[5] Our proposals concerning teacher pay increases are discussed in Chapter 10 of this Volume.
[6] Our proposals concerning the assessment and evaluation programme are summarised in Chapter 7 of this Volume.

year after year. If this goal is assigned high priority (as encouraged by the convergence programme), resources intended for this purpose should be strictly allocated and monitored. The Ministry of Education and the Educational Agency should be required to account for the use of the funds in detail every year.

The next few years' funding rates should be predictable and the real value of the grant should be constant.

3. Central funding could provide a stronger incentive to improve efficiency if the next few years' funding rates were predictable and the real value of the grant was constant. The more credible the central government's commitment not to amend the funding system to compensate for the decline in pupil to teacher ratios (i.e., making sustained and continual workforce adjustment unavoidable), the stronger the incentive created by the funding system will be. The new formula for the basic grant constitutes a good starting point but the basic allocation included in the formula should be tied to average or typical wage levels as specified by public sector (or teacher) pay scales.

Studies analysing and evaluating the activities of local governments are needed.

4. Studies analysing and evaluating the activities of local governments are needed to permit the development of an appropriate incentive scheme. Education management practices, the regulation of education and the various supplementary grant programmes should be subjected to a detailed analysis to identify the contribution of each component to the decline in pupil to teacher ratios. In addition to weaknesses in the process of local adjustment to demographic change, further causes of the decrease in pupil to teacher ratios should be investigated since this is a prerequisite to achieving a sustained increase in the ratio of pupils to teachers.

Education policies should be regularly assessed and their impact evaluated.

5. We propose that education policies should be regularly assessed and their impact evaluated. Cost increasing educational programmes (such as the foreign language year programme) should be systematically evaluated, comparing their real gain to their costs. The introduction of new development programmes should be mandatorily preceded by an assessment procedure.

6. In the near future, Hungary will be allocated a development grant surpassing any previous support from the European Structural Funds. The level of sustainable operational costs of the public education programmes of the New Hungary Development Plan should be calculated. As far as we know these costs have not yet been assessed partly because the significance of this task has not been duly appreciated by the actors involved. Long term running costs are increased both by information technology developments and building renovations since the resulting products need to be maintained and serviced. The proposed programme of assessment and evaluation presupposes the long-term operation of organisations, which also increases regular costs. If these expenses are not taken into account, there is a danger that savings will be absorbed by unforeseen operating costs and cannot be used to fund new programmes aimed at improving the efficiency of the public education system.

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