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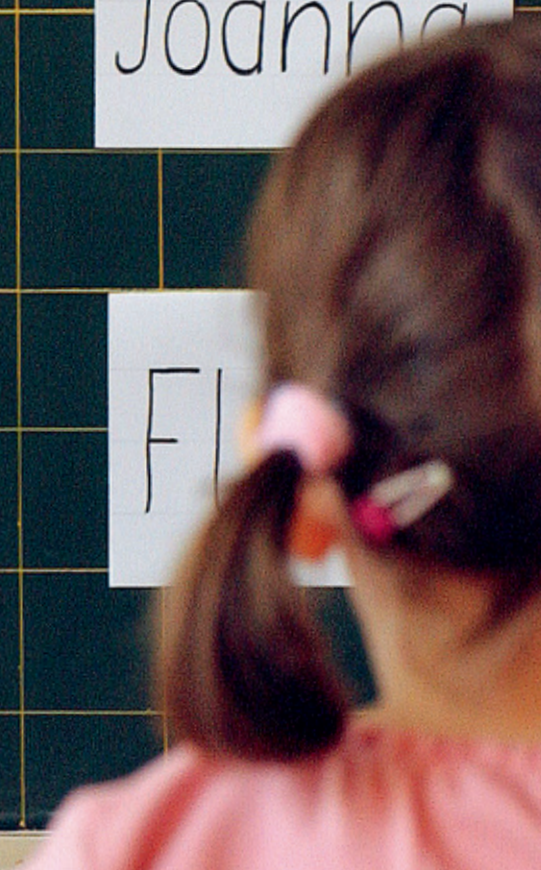
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Better to Step in Early than Fix Things Later

As a country that prides itself on its education system, Germany was left reeling by the PISA study. To think that, in an international comparison of scholastic performance at the dawn of the 21st century, the nation of poets and philosophers failed to secure even an average grade! How has Germany responded to this challenge?

JÜRGEN BAUMERT and **KAI MAAZ** consider the problems facing educational policy and detect first glimmers of hope.

Nerves were tense again at the end of last year: First came the results of the PIRLS/IGLU survey of reading comprehension among children about to finish elementary school, followed by the third comparative PISA study of learning skills among 15-year-olds. This time, Germany's politicians, administrators and teachers breathed a sigh of relief: things seem to be improving.

Elementary schools are performing well. Achievement levels are rising. However, the high share of immigrant children leaving elementary school with inadequate language skills remains a problem. In secondary schools, too, there are signs of improvement, particularly in the sciences. It is gratifying to note both that greater numbers of young people are achieving the qualifications needed to

enter vocational training, and that their achievements are less closely linked to their social origins. Like a weighty tanker on the sea of education, the system seems to be slowly responding to the change of course.

What has happened? The international comparative studies have shown just what is at stake: Knowledge and ability, commitment and a sense of responsibility are the most important resources available to our society. Education is a precious commodity that can be acquired only through sustained effort, and that is quickly squandered through neglect. A clear view of the outcomes of the education system is the first step toward rethinking its structure and processes. At a political and administrative level, this rethink is very much in evidence. ►

The Conference of Education Ministers seems to be acting as pacemaker in this overdue process of modernization – albeit with some difficulty and the occasional relapse. Piecemeal regulation is increasingly being replaced with strategic orientation. Educational reports, international comparisons, education standards and the introduction of pilot programs, inspections and early diagnosis and support are all markers of this development. However, there is still reason for caution: significant problems still exist.

The results of the PISA 2000 study provided the first broad-based evidence for the existence of serious social inequalities in education systems. Not one country that participated in the study has yet succeeded in breaking the link between the acquisition of reading, mathematics and science literacy and certain features of social background. On the other hand, the data does reveal differences in how effectively individual countries are tackling the problem. In Germany, the differences in the achievement levels of children from differing backgrounds remain substantial; they emerge at an early age and increase as the child grows older. It is also striking that Germany's success rates in integrating – even second-generation – immigrants into the education system lag far behind those of other countries.

The situation in Germany is the product of 40 years of political reluctance to grasp the thorny problems associated with immigration. This national duty has been neglected due to party-political wrangling – with inevitable consequences. While the latest PISA results indicate a general trend toward improvement, the problems still remaining are considerable.

Where are the barriers to social mobility?

Back in the 1960s, there was much talk of social inequality in educational participation in Germany. The country's tracked secondary system, characterized by minimal mobility from one school type to another, was identified as a major problem in that it provided insufficient scope for children to develop their talents and created inequalities between social strata. Subsequent education reforms, such as the harmonization of the curricula taught at the different types of schools, the partial coordination of syllabuses, the reforms of rural schools, vocational-track schools and comprehensive schools, and the reintegration of children with special needs into regular schools, were all born of a desire for social equality.

Yet despite the expansion of education in the 20th century, social inequalities in terms of educational participation and the acquisition of basic skills have proven exceptionally hard to eradicate. As educational and social researchers have repeatedly observed, social inequality is entrenched in the education system.

The question of why and how these social inequalities arise in the system was marginalized for a long time. Many studies at both the national and the international level focused solely on describing the situation. As to the question of where these inequalities arise, a simple and common answer is to blame the very structure of the education system. But is that really the case?

In Germany, one focus of discussion has been on the early transition from elementary to secondary school. Back in the 1960s, the Conference of Education Ministers resolved that the elementary school's recommendation of a secondary track for each pupil should be based exclusively on the pupil's capacity to benefit from that form of education – regardless of social aspects, such as the status and affluence of the parents.

A study entitled "The transition from elementary to secondary school – regional, social, and ethnic/cultural disparities in educational equity" conducted at the Max Planck Institute for Human Development in Berlin is, for the first time, providing nationally representative data on the transition to secondary school – one of the most important transitions in a pupil's educational biography.

Besides performance in reading, mathematics and science, this study incorporates a broad spectrum of variables in its analysis of the decision-making process. The data provides insights into how aspects of social origin manifest themselves at points of transition, how great an effect they exert, and how social disparities might perhaps be addressed.

Educational researchers and social scientists are particularly interested in how social origins exert their effect: Is social background directly reflected in measurable differences in skills and achievement that are, for example, the product of differences in parental care and support (primary social disparities)? Or do the parents' educational background and class influence their decisions and expectations for their children's education in a manner that itself leads to socially selective participation in education (secondary social disparities)? Whereas primary disparities are consistent with the principles of meritocracy, the secondary disparities clearly violate these principles in that they produce new disparities in educational participation that are independent of ability and attainment.



Sadly, it remains the case that social justice does not prevail at the transition to secondary school: children from the lower strata of society are systematically disadvantaged at the move to lower secondary education. For example, young people from professional families are around three times as likely as children from working-class families to attend an academic-track *Gymnasium* rather than an intermediate-track *Realschule*, even given comparable aptitude and achievement.

In Germany, as elsewhere, parents' expectations for their children's school-leaving qualifications have been steadily rising. In the past ten years, the *Realschule* certificate and the *Gymnasium* certificate (which is a requirement for university entrance) have become equally prominent on parents' wish lists. Nevertheless, the content of these wish lists differs widely depending on the parents' own career and educational background: whereas only a quarter of parents who left school with a vocational-track *Hauptschule* certificate hope to see their children qualify for university entrance, among parents with the *Gymnasium* certificate, this proportion rises to almost three quarters. Class-specific expectations and cost-benefit considerations appear to underlie the parents' decisions. The Transition study aims to identify the specific criteria on which parents base their decisions, and to determine how they weight these criteria. Results already show that there is more evidence of social justice in teachers' recommendations than in parents' decisions.

Once pupils have made the transition to a specific type of secondary school, their social background seems to have virtually no influence on their learning gains from grade 7 to grade 10. This finding, which emerged from a long-term study of educational processes and psychosocial development in children and young adults (BIJU), coincides with the results of US studies. It would seem that educational success or failure is predetermined by the crucial choice of secondary school type – irrespective of the pupil's individual intellectual, cultural, social and economic resources.

Various studies have provided empirical evidence that different school types represent specific learning and developmental environments. The differential learning gains of students at different school types indirectly broaden the scale of social inequality. But why should the gap widen in this way?

There appear to be several potential explanations: differences in pupils' individual aptitude and ability (individual effect), differences in the academic, social and cultural composition of the student body (composition effect), and institutional differences, such as differing syllabuses, teaching programs, educational cultures and teacher qualifications (institutional effects).

If it is not primarily the school that creates social inequality, what about the parents' influence? Long-term studies in the US have shown that social inequality develops mainly during the long summer vacations. It is during this period that learning trajectories diverge, whereas during term time, they remain largely parallel. Therefore, it seems that it is not primarily the school, but rather family and neighborhood influences that create social inequality.

Summer camp compensates for disadvantages

A new study by the Max Planck Institute for Human Development suggests that the same applies in Germany, where even the relatively short summer vacation contributes to disparities in the reading skills of elementary school pupils. The achievement gap widens when school is out – children from the lower strata of society and from immigrant families fall behind their counterparts from more privileged homes or without an immigrant background.

That need not happen. A summer camp run in Bremen by the Berlin-based Max Planck Institute and financed by the Jacobs Foundation showed that recreation, theater-based language training and daily German lessons can be successfully combined. The rewards are evident in the bright eyes of the enthusiastic children and in the sustained improvement in their language skills. Vacation programs like this offer no opportunity for social disparities to increase. On the contrary, they compensate for social disadvantages. The Bremen model has found many imitators. However, the fact that summer camps have not yet become an integral part of the educational program of every sizeable local authority district shows that the road from recognition to politically and socially responsible action is a long one.

The findings of studies on the economics of education demonstrate that early intervention and support are not



just good policy, but also make good economic sense. Drawing on long-term experimental studies that have been running for over 40 years now, economist and Nobel laureate Jim Heckman recently showed that early support for families and quality care and education opportunities can yield returns for both individuals and the economy that add up to a multiple of the investment cost. The marginal utility of such support measures diminishes as the recipient grows older. According to Heckman's findings, the age of seven to eight represents a critical threshold. Later support programs can be effective, but their cost is then generally higher than the aggregate long-term returns. Even though no society can afford to dispense with late-in-the-day support for disadvantaged groups, the principle must be that it is better to step in early than to fix things later.

Repair programs are too expensive

Nevertheless, in Germany, the repair-shop mentality prevails, as the rising number of those admitted to the so-called transitional system shows. The collective term "transitional system" refers to the wide range of generally short-term programs intended to bridge the gap between leaving school and embarking on proper vocational training. The number of young people enrolled in such programs has risen sharply in recent years and includes both those who have qualifications but have failed to find a suitable position, and those without the necessary qualifications to begin training for a career with future prospects.

Particularly the latter group is growing steadily. Such "qualification gaps" are a product of modern knowledge-based economies, in which fewer training and employment opportunities are open to less-qualified young people, and the general education system is unable to provide a substantial proportion of the next generation with the basic skills they need to undertake demanding vocational training. In Germany, this high-risk group that fails to attain minimum educational standards and that lacks the motivation to learn is far too big, accounting for around 20 percent of the age group. The education and training facilities offered via the transitional system are probably more effective than is often assumed; however, they are extremely expensive. This applies, in principle, to all repair programs. Despite the evident positive trends – rising

achievement levels, more young people qualifying for vocational training, some progress in weakening the link between social background and educational outcomes – there are still some aspects of the German education system that are clearly problematic.

In her speech marking the 60th anniversary of post-war currency reform, German Chancellor Angela Merkel set out her vision of Germany as an education-based republic: In today's world, prosperity for all means education for all. The Chancellor declared education to be a signature issue. But does she have the authority to deliver on her promises? In every important respect, responsibility for education lies with the federal states, local authorities, independent charities and other parties to the social contract. The reform of the federal system that was put into effect after some dispute both within and between the parties has further disentangled and clarified these responsibilities: education remains largely a matter for the federal states. The federal government is responsible for supporting scientific research, and provides a costly repair shop function at the point at which the federal states and German businesses are failing: the point of transition from school to primary vocational training.

Against this background, the high hopes that some concrete measures might emerge from the Chancellor's education summit were bound to be disappointed. Nevertheless, her efforts would appear to be part of a well-considered strategy of making education a signature issue – to be signed off by the chief ministers of the federal states. If there is to be a genuine broad-based effort involving the federal government, it is essential that the urgency of the education issue be fully appreciated by the state governments, and that the minister presidents step up to their responsibilities. Whether, and when, this happens remains to be seen.

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