

# Copying Welcome!

*Four letters sent a "culture shock" rippling through Germany in early summer: PISA. The results of this "Programme for International Student Assessment", which is analysing the level of student achievement in 32 countries, had given German youngsters a poor report. But what action should be taken? DR. PETRA STANAT of Berlin's MAX PLANCK INSTITUTE FOR HUMAN DEVELOPMENT cannot offer a "quick fix" either. But the scientist who co-ordinated Germany's participation in PISA is recommending that Germany peek over the garden fence to learn a few lessons from more successful neighbours.*

**T**hings have quieted down a bit on the subject of PISA (see also the article on page 62 of this edition). The differences between the German *Länder* that were highlighted in a report published in June did not move to the forefront of the election campaign, as might have been expected just a few months earlier. This might be linked to the realisation that none of the German states are first division players at international level. Despite the marked differences in the results within Germany, it is the similarities that stand out on the international stage.

The findings of the international study show that Germany does not support pupils with diverse educational needs as successfully as other industrial nations. This applies in particular to those pupils who are academically weak, who come from poorly educated families, or from immigrant backgrounds. But even among the more able students, relatively few achieve top scores. The number of high achievers in Germany is much smaller than in more successful OECD countries. This is perhaps the most surprising finding.

Due to the tracking in the German secondary school system, pupils are taught in significantly more homogeneous groups than in countries where such external differentiations do not exist. The academic-track "Gymnasium" schools are attended by a group of youngsters with a comparatively good educational background. Nevertheless, the average scores of Germany's top ten percent are no higher than the OECD average for this group. In countries such as Finland, Australia or Canada, where all pupils continue to attend school together at lower secondary level, the marks of the top ten percent of pupils are significantly higher. There can be no clearer evidence that in Germany school and lessons are insufficiently geared to students' individual needs – even for the highest achievers.

The outcomes highlighted in Germany by the international study are repeated within the German *Länder*, albeit in differing degrees. Bavaria and Baden-Württemberg occasionally perform at or above the OECD average, but even in these states the results are a far cry from those of the most successful countries. In all of the

German *Länder* there is a wide range of performance scores and a relatively large percentage of pupils potentially at risk. The correlation between family background and learning outcomes is also very strong in international comparison, particularly in the former West German *Länder*. And the differences between the *Länder* that lie at either end of the performance spectrum are by no means slight. Differences which correspond to up to one-and-a-half to two school years can lead to serious mobility problems. For instance, a family moving from Bremen to Bavaria might well find that children who had achieved average to good marks in Bremen have problems making the academic transition and might even have to repeat a year.

Ultimately, however, the standards for improving schools in the Federal Republic lie not within but outside Germany. In the light of this, various bodies are carrying out research into the school systems of more successful countries. A unifying theme of much of this research seems to be the hope of identifying some common characteristics to which the success of the systems can be attributed, with a view to ultimately importing them. However, for methodological reasons, this hope is unlikely to be realised. The number of countries is too small, the number of relevant factors too great, and the interaction between them too complex for the specific and combined effects of these characteristics to be isolated.

### No hope for a "quick fix"

So a peek over the garden fence is not likely to supply an easy answer, but it can help us to discover biotopes which might give food for thought on the lay-out of our own garden. For instance, it is inspiring to find out just how few questions officials in Sweden's central school administration are able to answer about their schools. One of the most common replies is, "That is decided by the local authority or the school itself." The modest scope of the prescribed curriculum in some countries is remarkable by German standards – in Sweden, for example, the syllabuses for all subjects for years one to nine comprise barely one hundred pages. So it is not a case of working with excessive prescriptions of content to be covered, but with descriptions of core competencies and achievement standards.

Even a short visit to a Swedish or Finnish school shows that lessons here are geared very strongly towards individual needs. In Sweden it seems to be commonplace for teachers to draw up individual timetables

for their pupils on a weekly basis. Up to year eight, feedback on work is given not in the form of marks but verbally. Finland in particular still invests heavily in early years education. For example, for the last ten years or so, nursery school teachers here have been required to have a university degree, which, at Helsinki University, also includes training in specialised instructional approaches.

Of course it is not just Finland and Sweden which can provide food for thought on the German school system. The video study carried out in the framework of the "Third International Mathematics and Science Study" (TIMSS) shows, for instance, that there is a lot to learn from mathematics instruction in Japan. The best Japanese mathematics lessons – for which one rarely finds an equivalent in Germany – are exemplary in many respects. Teaching methods such as the Anglo-American "literacy" concept or the Dutch Freudenthal Institute's "Realistic Mathematics Education" are also being followed with interest and discussed by didactic specialists in Germany.

However, our peek over the garden fence should not just be confined to the successful aspects, but should also take undesirable characteristics into account. After all, a great deal can and should be learned from questionable practices and developments. Before you introduce a new fertiliser or type of plant into your garden, it is always a good idea to take a good look at others' experiences with them, so as to anticipate and guard against negative side effects.

One common characteristic of many of the more successful PISA countries is a more output-oriented system than in Germany, and it is virtually undisputed that the German school system should also move in this direction. In the context of this development, at their plenary session on 23rd and 24th May 2002, the Ministers of Education and the Arts from the *Länder* agreed to introduce binding standards countrywide. As part of implementing these standards, sample tasks are to be drawn up to provide an idea of the requirements that the students are to meet. The resolution continues that adherence to the standards within the *Länder* is to be checked using suitable procedures. Other education systems have long experience of such procedures. In countries like Australia, Finland, Holland, Sweden or the United States, regular checks are carried out on a national or regional level to make sure that schools are actually achieving their targets. So at first glance these systems appear to perform a similar function. However, when put into practice, there are some differences worth analysing.



With the introduction of a more output-oriented system, the power to define what is taught and learned in schools is transferred largely to the standards and tests. The experiences of other countries show that this can have outcomes of varying desirability. A key theme of discussions on education in the United States is the problem of "teaching to the test". To safeguard standards, the federal states use various tests, the outcomes of which are of crucial importance to the future of the schools themselves as well as sometimes for the individual teachers. As a result, it appears that instruction frequently boils down to coaching pupils to pass these tests. For example, an American colleague quoted a teacher as saying, "I have to stop teaching now and prepare my students for the test."

"Teaching to the test" does not seem to have become such a problem in other countries, however. This may be due primarily to the way the tests are drawn up. For example, many of the PISA tasks were developed by an institution which is also responsible for the national student assessment tests implemented in the Netherlands (CITO). These tasks do not focus on purely factual knowledge, but evaluate the flexible use of knowledge and skills in authentic life situations. It is not really possible to coach students for tests like this. Ideally, the tasks require a true understanding of the underlying concept. Provided that tasks such as this, based on firm understanding, could be compiled, "teaching to the test" would even be desirable.

Likewise, in Sweden the national assessments do not seem to have led to teaching and learning within the subject areas being concentrated on the acquisition of easily testable knowledge. The PISA results indicate that Swedish pupils are extremely well prepared to tackle tasks embedded in new contexts. However, it does seem that the assessments influence the emphasis placed on individual subjects to an undesirable degree. For instance, Swedish colleagues have expressed concern that teaching and learning in Sweden's schools has focused increasingly on the three subjects to which the national tests relate – Swedish, English and mathematics. To broaden this spectrum, tests in other subjects are also now being offered.

The quality of the standards and tests implemented will be decisive in determining whether the German states succeed in achieving the goals they have set themselves with the planned changes. There is certainly a great deal of spade work to be done in this area. And

there is more to it than just laying down rigorous standards and compiling intelligent tests. Teachers need support to be able to implement the new standards in the classroom. In the USA, teaching to the

test is viewed as part of a more general problem, namely, a lack of alignment among teaching objectives, teaching materials, criteria for the evaluation of individual pupil performance in the classroom, and standardised achievement tests. These experiences merit closer examination in order to avoid similar problems arising in Germany.

Reforming the system to be more strongly output-oriented throws up a host of new questions. For example, an important question is how school-level results of national achievement tests should be used. Should they be at the exclusive disposal of the authorities and the schools concerned (as in Finland for example), or should the public also have access to the information (as in Sweden or Great Britain)? What should happen to schools that do not reach the standards? What additional support will they receive? To what extent and in what form should pressure be exerted should the need arise? In searching for an answer to these questions, it should also prove helpful to take a careful look at the models that already exist internationally in order to understand their effects, not least any undesirable side effects.

### No reason to believe that a monoculture is the answer

So a peek over the garden fence rewards us with numerous ideas for revitalising the German school system. Yet it is also important to consider what consequences the implementation of such ideas might have for other elements of the system or the system as a whole. It is important to look very closely in order to understand how next door's garden works, and to identify any weak spots that it would be better not to import. A peek over the fence also makes it clear that very different systems can be successful in achieving good results. The institutional and cultural conditions under which schools in Australia, Finland, Canada, Japan, or Sweden work are very different. This also applies to a lesser extent to the German *Länder*. It is clear that Berlin, Hesse and Saxony-Anhalt have to cope with very different challenges and there is no reason to believe that a monoculture would be appropriate. Under the umbrella of national standards, different types of biotopes could be cultivated within Germany, tempting others to look and see what's growing in the country's garden. ●