Every three years a Scandinavian country grabs the attention of the media and educational policy-makers. This is the time when the results of the PISA study carried out by the Organisation for Economic Cooperation and Development (OECD) are published. This survey compares and analyses the abilities of fifteen-year olds in schools in the areas of reading, mathematics and science. Finland’s school students became famous around the world after the first results were published, while Germany went into a state of “PISA shock”. Educational experts continue to flock to Finland to discover the secrets of their success. The website of the Finnish embassy in Germany proudly proclaims that the term “PISA tourism” is now a household phrase for study trips to the country.¹

The achievements of the Finnish educational system have been lauded in the international media, particularly the fact that in Finland social background is of minor importance. In Germany things are quite different: although the children of immigrants have recently been performing better at school, education in Germany is still very much determined by social background.² The achievements of the nine-year education system provided by comprehensive schools in Finland have become an international model – and myth.


The significance of the PISA surveys is taken for granted by the public without really subjecting them to scrutiny. The political classes have engaged in polemical discussion.

The debates about school reforms in Hamburg, which have explicitly referred to the Finnish model, have shown how people in Germany are still agonising over how to create the sought-after “Educational Republic of Germany”. German state politicians are certainly not short of ideas: eight or six-year grammar school systems, six years of elementary schooling instead of four years, combining different types of secondary schools (Hauptschule/Realschule), full-day schools, comprehensive schools, high schools (Mittelschule) – to name but a few variations in federal educational policies. However, particularly for opponents of the three-tiered school system, Finland is seen as a trailblazer in the reform debate. But what does PISA actually measure? How is the Finnish school system set up? How are the PISA results viewed in Finland itself? And can Germany really learn anything from Finnish educational policies?

**WHAT PISA CAN – AND CAN’T - MEASURE**

The discussions in Germany about PISA reveal first and foremost a widespread ignorance about what conclusions can – and cannot – be drawn from the survey results. The significance of the PISA surveys is taken for granted by the public without really subjecting them to scrutiny. The political classes have also to a large extent engaged in polemical discussion without analysing more closely the assessments’ validity and the approach used. So it now makes sense to look at the starting point and methods used in carrying out these studies.

The acronym PISA stands for “Programme for International Student Assessment”. According to the Organisation for Economic Cooperation and Development (OECD) the goal of the survey is to find out “how far students near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation

Around 470,000 students from 65 countries took part in the 2009 PISA survey. The assessments were carried out in the form of tests which were designed to measure the literacy of fifteen-year old students. The test lasts for two hours and is based on a mixture of multiple-choice and written answers. In order to avoid anomalies, different test papers are used (13 different test papers were used in PISA 2006). The questions are not designed to test knowledge learned in school but the “ability to apply knowledge and skills to real-life problems”. The results are turned into a score and given a performance ranking. The study also aims to draw conclusions about the connection between the social background of students and their educational success. So students and teachers fill in questionnaires to provide information about the social background of students and schools. Data is also collected on motivation, learning methods and support from teachers. Participating countries can also expand the tests to include national components, an opportunity taken up by Germany in order to analyse the differences in student performance in the different federal states and in the different types of schools (PISA-E).

The results of the PISA study have been analysed much more critically in academic circles than by politicians or the media, and even a summary of these main criticisms results in a long list of points. The first criticism was aimed at the approach used in the study itself. The OECD studies assume that the educational policies of all the participating countries have similar objectives and therefore base their evaluation on the performance of schools and students in international competition. PISA sets a standard that is

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The content and methodology of the tests were also criticised. Because 15-year-old students are tested, irrespective of which school class they are in, those school systems that are based on a later student intake are at a disadvantage. Another problem is that in some countries a much higher percentage of students have already left school at that age (e.g. Mexico, Turkey). As a result the weakest students in some countries no longer even featured in the PISA study. The test questions have been criticised not only in terms of their content but also for the fact that the length of the questions can vary so much as they are translated into the language of the individual countries. The varying degree of complexity of the different languages involved is not taken into account in the PISA study.

There has also been a significant amount of criticism about what PISA actually measures. In public debate PISA is understood to be a comparison of schools, but on closer inspection this is not really the case. PISA’s goal is to show the ability of students in as near “real-life” situations as possible, but the study does not allow firm conclusions to be drawn on where and how these skills have been acquired. As a result it is impossible to say that PISA successes or failures are solely down to the performance of the schools. At best the study can only really give a snapshot of the “current status”. The study does not measure the progress that pupils have made since they started school. History, literature, cultural education and foreign languages are not included in the study. “PISA only really tests a fraction of what education actually is: a little bit of our students’ knowledge and a little bit of their skills.”

Finland has consistently been ranked in the top four of the PISA studies. The only exception was in mathematics. However, Finland is the only European country near the top of the tables. The success of Finnish students begs the question as to how the school system has developed there and what makes it so special.

Following independence from Russia in 1917, in the new constitution in 1919 enshrined the principle of the right to free education for all. Compulsory schooling was passed into law in 1921. Before a change in the law in 1968, children had to receive six years of basic education which split into two branches after the fourth year. Between 1972 and 1977 comprehensive school system was introduced throughout the country. The reforms were completed in 1982 when, for the first time, all pupils sat their national exams after nine years at a comprehensive school. The practice of dividing pupils into six lower and three upper level classes

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9 | Cf. Oelkers, n. 6, 103.
(ala-aste and ylä-aste) stopped with the introduction of new legislation in 1998. In the first six years the pupils are taught by class teachers and after that they are taught by specialist teachers in the various subjects. Today pupils attend elementary school (Pereskoulo) from the first to the ninth school year. Children also tend to start school later, with compulsory education starting at the age of seven and finishing at the end of the ninth school year. Since 2001 all local authorities also have a duty to offer six-year-old children a place at a pre-school for one year. At this point in time around 90 per cent of six-year-old children attend these schools. This pre-school education can take place either in a kindergarten or at the local comprehensive school.

The school system in Finland is funded by local authorities. Official school grades can be awarded from the fifth class onwards, but this is only compulsory from the seventh class onwards. Students need to pass their school-leaving exams at the end of their final year at comprehensive school if they wish to move on to further education. However, students also have the option of a tenth year at school if required.

Further education after the end of compulsory schooling has two different branches, and it is possible for students to transfer between the two. Following comprehensive school, students can move on to upper secondary education. Here they are taught using a course system to prepare them for a matriculation exam. Attendance is normally for three years but can be shortened or extended by a year depending on ability. The final matriculation exam is organised nationally and all pupils sit it at the same time. Marking of the exam is also done centrally and individual teachers have no influence on the marks. In addition to the native language, the exam must include at least three different subjects, which can be chosen from the following: second national language, a foreign language, mathematics, and one subject from the fields of science, social sciences or humanities.

11 | Cf. ibid., 139.
Vocational upper secondary education can take the form of either an apprenticeship or vocational training, where seven different qualifications are offered (business/administration, technology/transport, nutrition/domestic science, social science/health, leisure/sport, culture and natural resources). After completing the three years of basic training the students can apply for a place at a university or polytechnic. The majority of graduates from vocational training schools go on to a polytechnic.\textsuperscript{14}

**SPECIAL FEATURES OF THE SCHOOL SYSTEM**

International interest in why Finland has had so much success in the PISA studies has not been limited to its European neighbours. Education Minister Henna Virkunnen also reported in a newspaper interview that they had had groups of visitors from "rich oil states". She has even been asked "if it is possible to buy Finnish schools".\textsuperscript{15} A more accurate analysis of the apparent reasons for their success suggests that particular environmental factors play a major part and that these are mostly not transferable. What is clear is that this is not only due to the political system in the country but that socio-cultural factors also play a key role. Amongst the most often cited reasons are Finland’s tradition of reading, small class sizes, social homogeneity within the country as well as individual support measures and staffing within the schools.

Looking at these socio-cultural factors in more detail, it has been suggested that the Finns take particular pleasure in reading. This has apparently always played a significant role in the country’s changing history. In 1323 a peace agreement was signed between Russia (Novgorod) and Sweden which resulted in a large part of Finland coming under the rule of Sweden. In 1809 Finland became part of the Grand Duchy of Russia. Finland declared its independence in 1917 following the October Revolution

\textsuperscript{(eds.),} Kempten: Klinkhardt 2009, 120.
\textsuperscript{14} Cf. ibid.
The population structure has a significant influence on the school system, with one quarter of Finnish schools having fewer than fifty pupils and only three per cent having more than 500. A significant feature of Finnish schools is their small class sizes. This is primarily due to the low population density in many areas. Finland has around 5.3 million inhabitants in a country of 338,000 square kilometres, which makes it not much smaller than Germany (357,000 square kilometres). The population density in Finland is therefore only 17 inhabitants per square kilometre, while in Germany it is around 230. This population structure has a significant influence on the school system, with one quarter of Finnish schools having fewer than fifty pupils and only three per cent having more than 500. 60 per cent of schools have fewer than seven teachers. The use of a national curriculum and the same textbooks also ensure that teaching content is the same throughout the country. However, teachers do have some flexibility in their teaching methods and can give specific lesson plans their own individual twist. Teaching content in Finland and Germany has a lot of similarities, but on closer inspection it can be seen that pupils in Finland have more lessons in foreign languages. Pupils in comprehensive schools have to learn at least two foreign languages in addition to their native language. Most pupils learn English and a second national language (Swedish or Finnish). Pupils also have the possibility of choosing two further languages on top. The most popular are German, French, Russian and Spanish. In addition to languages, compulsory subjects include environmental studies, health education, religion and ethics, history, social studies, mathematics, physics, chemistry, biology, geography, sport, music, art, handicrafts and home economics.

Social homogeneity in Finland is also a significant factor, as the composition of the population means that Finnish
The German school system is struggling with the burden of history. Germany out of economic considerations tended to encourage the immigration of lower-qualified migrants. Pupils rarely have to deal with the issue of integrating foreign children. According to figures from Statistics Finland only 3.1 per cent of the population in 2011 are foreigners. In Germany the figure is much higher: of a total population of around 81 million 6.75 million inhabitants are foreign nationals and more than 15 million (18 per cent) have an immigrant background. This factor is not to be underestimated, as the problems of integrating pupils with an immigrant background are clearly visible in Germany. In his book *Ist die Bildung noch zu retten?* (Can education still be saved?) Josef Kraus points to a lack of integration within education: “Seven per cent of German pupils fail to pass their final exams, while among those with a Turkish background the figure is 30 per cent. Less than ten per cent of young people with an immigrant background go on to university, while around 40 per cent of Germans achieve the necessary qualifications.” The German school system is struggling with the burden of history. In contrast to other countries whose immigrant populations have a higher level of education, Germany historically tended to encourage the immigration of lower-qualified migrants before the government of Willy Brandt proclaimed a stop on immigrant recruitment in 1973. This was done out of economic considerations. Today the integration of young foreigners and students with an immigrant background remains a significant challenge for the German school system.

A basic principle of Finnish educational policy is giving students individual attention. Teaching assistants are often there to help, particularly in the early years of schooling. Every school has to have a student welfare team (oppilaanhuolto) consisting of a social worker, an educationalist and a school nurse. However this specialist


20 | Cf. Kraus, *Ist die Bildung noch zu retten?*, n. 8, 47.
Preliminary remedial teaching is mostly carried out in the classroom, with the class teacher giving special attention to the students with learning or adaptation difficulties. If this proves to be inadequate then the students can be given special teaching. Depending on the students’ needs and school resources this can be done in small groups or on a one-to-one basis. This special teaching comprises two stages: partial special teaching involves tuition in one or a few subjects, whereas comprehensive special teaching generally includes all subjects.\footnote{Cf. Aila-Leena Matthies, “Vertiefender Exkurs II: Anders Lernen – Förderpädagogische Maßnahmen und Sonderunterricht in der finnischen Grundschule,” in: Mathhies/Skiera (eds.), Das Bildungswesen in Finnland, Kempten: Klinkhardt 2009, 157-164.}

Remedial teaching for weaker students is particularly successful in Finland and contributes to the comparatively uniform results achieved by students in the PISA study. \textit{Spiegel} writer Christian Füller analyses it as follows: “The Finns are not world champions in the PISA international school assessments, rather they are the uncontested champions of the bottom ten thousand.”\footnote{Cf. Christian Füller, “Finnlands Pisa-Geheimnis,” \textit{Der Spiegel}, March 23, 2005, http://spiegel.de/schulsiegel/wissen/0,1518,347648,00.html (accessed April 28, 2011).}

In Finland teacher-training is afforded particular importance. Even \textit{lastentarhanopettaja}, nursery teachers, are required to have completed a three-year Bachelor’s degree at a university or polytechnic as a minimum qualification. And, as part of the Bologna Process, training for comprehensive school teachers in Finland has been switched to the Bachelor/Master system. The major, Educational Science, is combined with two minors which can be chosen by the student according to their personal interests. Many primary school teachers (years 1 to 7) also attain the necessary qualification to be able to teach years 7 to 9 and so choose a minor subject which is taught in these classes.\footnote{Cf. Armi Mikkola, “Lehreraus- und –fortbildung in Finnland,” in: Jenseits von Pisa, Sarjala/Häkli (eds.), Berlin: Berliner Wissenschafts-Verlag 2008, 182.}

It takes five years to qualify, including compulsory periods of
The OECD believes that there is a strong correlation between society’s respect for the teaching profession and the success of that society’s school system. The universities have associate schools where students can take their first steps in teaching. The training of subject teachers is different from that of class teachers as they mainly focus on their main discipline, “but 23 per cent of their studies still involve professional components such as educational science, dialectics, writing a short dissertation and practical training”. The teaching profession enjoys remarkably high popularity and esteem. Whereas in Germany teachers are about as unpopular as politicians, in Finland teaching is among the most popular professions. Teacher-training establishments always have more applicants than available places, despite the fact that teachers’ salaries are nothing like as high as in Germany. The OECD believes that there is a strong correlation between society’s respect for the teaching profession and the success of that society’s school system. Moreover, “the PISA results also indicate that increasing the quality and remuneration of teaching staff can be more important than reducing class sizes”.

All in all, the excellent performance of Finnish school students is nothing less than remarkable. But despite this, Finnish comprehensive schools cannot be held up as a model for Germany to follow. The myth of the Finnish educational system is based on a homogeneous population structure and specific social and cultural conditions, both factors which are not transferable. But the conclusion can be drawn that education needs to be valued by society in Germany in the way that it is in Finland.

**EUPHORIA IS FOR OTHERS**

In Finland the results of the PISA surveys have been met with less euphoria than in the rest of the world. For Finland too, the latest PISA assessment has thrown up strong discrepancies in the reading abilities of girls and boys, as is

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25 | Cf. Pfeifer, Bildung auf Finnisch, n. 12, 93.
26 | Cf. Kraus, Ist die Bildung noch zu retten?, n. 8, 180.
the case in all other participating countries. Ten years ago 80 per cent of Finnish school students claimed to read for pleasure, a figure which has today fallen by ten per cent. Almost 50 per cent of 15-year-old boys say they never read for pleasure. 28 Moreover, Finnish students seem to be relatively reluctant to go to school.

There are also frequent structural problems. The standard set by the Education Ministry is that classes which include special-needs children should contain a maximum of 20 students, but this is not always achieved. Finnish teachers are well-respected in society but generally under-paid and in 2008 56 per cent of teachers complained that they did not have enough time to look after their students’ individual needs. 29 There are very few full-day schools, so in Finland too children have to rely on parental involvement. But cooperation between schools and parents is sluggish, despite the fact that primary schools are legally obliged to work together with parents. The crux of the matter is that the Finns have a concept of the state which sees education as being purely the responsibility of the state: “For their children there are kindergartens and schools which can be relied on to look after all the important things.” 30

The myth of an educational paradise also starts to crumble when we take a look at the job market. In October 2010 Germany had the lowest youth unemployment in Europe at 8.5 per cent; while 20 per cent of Finland’s young people were out of work. This important point is too often ignored in the education debate. So Finland’s education system is also facing major challenges. However, reforms will only be made within the existing system as the system itself is not being questioned.

30 | Cf. ibid.
DOES OUR EDUCATION SYSTEM NEED TO BE MORE “FINNISH”?

Close scrutiny reveals that Finland is only of limited use as a model for educational policy in Germany. The Finnish comprehensive school system cannot be compared to the German school system. This is partly due to the country’s small population and also because of the homogeneity of the Finnish people. One of Germany’s biggest challenges in the educational area is to improve the integration of migrant children into schools, whereas this has little bearing on Finland’s policy.31

Overall the discussions about comprehensive schools in Germany – which have been triggered by PISA and which have in part been very ideologically and politically-driven – have turned out to be not particularly productive. And what is worse, the focus on comprehensive schools has overshadowed other important issues such as the poor integration of migrants and children from lower-income families, the need to provide learning support for underachievers, the need to improve teacher training in Germany and the urgent need to increase society’s respect for the teaching profession. The discussions also tend to downplay the fact that German comprehensive schools have a decades-long history of “resounding failure”.32 The Pisa studies bear this out, stating that “young people at secondary schools (Realschule) have been shown to have a head start over those who attend comprehensive schools (Gesamtschule)”.33

It is not only in Germany that comprehensive schools have failed to be educational policy’s hoped-for “silver bullet”. Countries such as Mexico and Brazil which have a comprehensive system find themselves languishing at the bottom of the PISA rankings. Full-day schools have also not been able to establish themselves as PISA successes, as is

32 | Cf. Kraus, Ist die Bildung noch zu retten?, n. 8, 52.
shown by the performance of English and French students. And in the latest PISA follow-up study, in Germany the best performances have come from students in the south, with Bavaria and Baden-Württemberg once again emerging as clear victors, despite these states having a traditional three-tiered school system.\textsuperscript{34} In contrast, the German states which provide six years of primary education and hence a longer joint learning period did less well. This is the case for the states run by coalitions of the Social Democrats and the left-wing party The Left, such as Berlin and Brandenburg, and also for Bremen, governed by a social democratic/green coalition which, according to the survey, is at the bottom of Germany’s educational league table. Once again we have to point out the shortcomings of the PISA survey, in as much as it fails to mention that schools in these states are operating under quite different conditions: for example schools in Berlin have to deal with a range of integration issues which are quite different to those faced by Bavarian schools.

The sensation in the latest PISA survey as far as the German school system is concerned is hidden in the small print. While the best students were continuing to consolidate their results, the weaker students managed to improve their performance. The proportion of students who only have an elementary reading level at age 15 has dropped since the first PISA study from 22.6 per cent to 18.5 per cent. This is all the more remarkable in view of the fact that during the same period the proportion of students with an immigrant background grew by four per cent to reach 26 per cent. The first PISA survey reported that Germany had the highest correlation between social background and academic success of any OECD country, whereas today Germany is mid-table among the OECD countries when it comes to equal opportunities. The relatively consistent performance of students is also remarkable when one takes into account the structural changes which have been taking place in grammar schools (\textit{Gymnasien}). Most federal states have cut schooling by one year and full-day teaching

Social background still plays a major role in education, even in supposed model states such as Bavaria and Baden-Württemberg. Politicians and parents have to face the same challenges. Nevertheless, social background still plays a major role in education, even in supposed model states such as Bavaria and Baden-Württemberg. Here too, politicians and parents have to face the same challenges. If gifted children fail to realise their potential then our society is wasting valuable resources for economic and social progress. The federal government’s education package is aimed at opening up educational opportunities for students from low-income households, but unfortunately so far only a few parents have taken advantage of what is on offer. But critics often ignore the fact that the education package is still in its early days and that demand for vouchers is constantly growing.

The poor performance of the Hauptschulen in all previous PISA assessments has led to reforms in many states, which are certainly not limited to the high-profile steps taken in Berlin. In Saxony, ruled by a coalition of the Christian Democrats (CDU) and the Liberals (FDP), the two-tiered school system of grammar schools (Gymnasien) and secondary schools (Mittelschulen) has made the grade. Students are streamed after year 7 at Mittelschulen and are given the opportunity to take Hauptschule or Realschule leaving exams. In Bavaria, which is still hanging on to its three-tiered system, the Hauptschulen were nevertheless restructured in the 2010/2011 school year, and at Mittelschulen it is now possible to take the General Certificate of Secondary Education (Mittlere Reife). Overall, many states have had a re-think when it comes to secondary education in the Hauptschule system.

Despite the difficulty in drawing comparisons, the Finnish example still allows some lessons to be learned. In particular, the Finnish system of early learning in kindergartens and primary schools could be taken up as part of the concept of remedial teaching levels for children with learning difficulties which was outlined earlier. It would also make sense for social workers and educationalists to be involved with Hauptschulen and Realschulen. These measures would no
doubt exceed the budget of the education package, but their long-term economic benefits should not be underestimated by politicians. According to data provided by the Ministry of Economic Affairs, in 2009 alone the shortage of skilled workers caused losses to the economy of fifteen billion euro. The improved academic achievements of the lowest-income sectors of the population, as shown in the latest PISA survey, show that Germany is inching closer to its goal of creating an “Educational Republic of Germany”. Society is undergoing a major transformation which is changing the function and role of the family in particular, and these changes particularly affect the children of poorer sections of the population. Against this background it is vital to carry out bold reforms and open wide-ranging dialogues on the subject of educational policy. It is important that these discussions really focus on the issues and are not run along party-political and ideological lines – something which presents a particular challenge to politicians and the media.