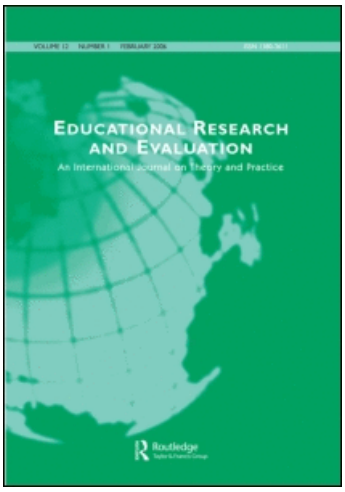


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# Introduction to this special issue

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# EDITORIAL

## Introduction to this special issue



Education is one of the pillars of modern societies. That makes the quality of education a very salient topic, not only in the eyes of policy-makers but even more in the eyes of parents. Indicators of the quality of education, schools, teachers, and so forth, have become important tools for the decisions of both parents and policy-makers.

In the late 1990s, the Organisation for Economic Co-operation and Development (OECD) took up an already established line of educational research by launching an ambitious collection of comparative data on the quality of schooling in OECD countries. This now well-known PISA survey (Programme for International Student Assessment) is an internationally standardized assessment that was jointly developed by participating countries and administered to 15-year-olds in schools. PISA, a 3-yearly survey (2000, 2003, 2006, 2009) of 15-year-olds in the principal industrialized countries, provides some answers. The aims of PISA are nicely summarized as follows: Are students well prepared to meet the challenges of the future? Are they able to analyze, reason, and communicate their ideas effectively? Do they have the capacity to continue learning throughout life? Parents, students, the public, and those who run education systems continually ask these questions.

Cross-national studies in student achievement have a long history. In the late 1950s, a group of scholars, educational psychologists, sociologists, and psychometricians forming the International Association for the Evaluation of Educational Achievement (IEA) started to collect international comparable data about educational systems. The very first IEA study, known as the *Pilot Twelve-Country Study*, was conducted in 1959–1962 with samples of 13-year-old students in 12 countries (Foshay, Thorndike, Hotyat, Pidgeon, & Walker, 1962). Testing was carried out in five areas: mathematics, reading comprehension, geography, science, and non-verbal ability.

In 1995, the IEA completed a data collection for the Third International Mathematics and Science Study (TIMSS). Forty-five countries participated in TIMSS, with more than half a million students encompassing five grades tested. The overall aims of the study were to measure the mathematics and science achievement in the various target populations and to identify the major in- and out-of-school influences on educational outcomes. TIMSS 1995 contributed to the stabilization of the IEA cycle of studies in mathematics, science, and reading literacy. The subsequent data collection for TIMSS (at present known as Trends in Mathematics and Science Study) took place in 1999, 2003, and 2007.

More knowledge about the actual quality differences in education and their causes with reference to international standards and comparison has become vital for policy-makers to guide their decisions. A side effect of the international benchmarking of the educational systems of countries is the free availability of a

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large cross-national dataset of the pupils of the involved countries, their parents, and their schools for scientific analyses.

Despite the fact that the PISA and IEA data are often cited and analyzed, they offer still nearly endless possibilities for further analyses of educational systems and their positions in modern societies. It is a pity that after spending such a large amount of money on data collecting and written official "thematic" reports and documents, the OECD spends no money to facilitate more in-depth and more adventurous academic analyses of their cross-national data. This special issue tries to fill this gap partly by offering these more in-depth and more adventurous studies than the official reports of the OECD and the IEA. The first two articles in this special issue are examples of these more in-depth studies, the three others of the more adventurous type.

Min-Hsiung Huang provides a more comprehensive understanding of between-country differences in student achievement with the TIMSS 1999 data. He does so by examining three kinds of measures all together: the measures of position (such as mean and median), the measures of variability, and the measures of skewness. He argues that it is also essential to investigate the variability of performance within and between subgroups from country to country. He finds no support for the hypothesis that countries with higher average quality also have higher equality in math performance. He also finds that both stratified and comprehensive educational systems can achieve both high average performance and small internal disparities, but that they are unsuccessful in other countries in reaching these two goals. The consequence of Min-Hsiung Huang's findings is that an educational system is not a panacea, ensuring both high performance and greater equity.

Daniel Horn addresses the classical issue of balancing inequality of opportunity and effectiveness in national education systems. He includes in his analyses also the stratification-standardization distinction of educational systems. His results indicate that educational stratification increases inequality of educational opportunity, while standardization enhances equality. Stratification does not improve overall student performance, and the association between standardization and effectiveness is not straightforward. A policy-relevant finding is that the early age of selection links closely with higher inequality of opportunity. The importance of standardization for promoting equality in educational opportunities is counter to the conventional idea of many teacher unions across the world.

Natascha Notten and Gerbert Kraaykamp address a less classical question. Normally, sociologists focus on parental social background and its effect on educational performance. These authors examine the effects of media resources in the parental home on the science performance of 15-year-old students, using the PISA 2006 data from 53 countries. Their results show that media assets in the family home are indeed meaningful for children's science performance, as a beneficial resource but also as a disadvantage. A positive reading climate in the parental home and the availability of computers improves science performance. However, a television-rich home seems to hinder children's school success. Furthermore, the results indicate that, compared to less developed countries, in developed countries parental reading investments are even more beneficial to their children's science performance, whereas a television-rich parental home is even more disadvantageous. These findings challenge the conventional wisdom of policy-makers that resources in rich and well-developed societies have become less important. It also supports the general view that too much television is bad for children's education.

Girls perform now better in education than boys across the globe. This reversal in the gender gap in education means that girls now plan to attain higher levels of

education and enter higher status careers than boys. Joanna Sikora and Larry Saha seek to establish whether this is the case across different cultures and socioeconomic conditions, using the PISA 2006 data from 53 countries. They find that young women are almost universally more oriented towards professional careers than young men. Moreover, across countries, strong differentiation in girls opting for artistic and caring occupations and boys electing ''investigative'', ''enterprising'', or ''realistic'' careers is no longer the dominant pattern. Their results indicate that the concerns over ''boys lagging behind'' are warranted. Furthermore, the higher levels of ambition among girls may be seen as a source of potential problems when women are confronted with the competing demands of the labour market and the family. These results show that the debates about gender and education should move away from the gender war of late last century, which focused mainly on gender equality in both education and the labour market.

Suet-ling Pong examines immigrant performance using the Hong Kong sample of the PISA data. Fifteen-year-old mainland immigrant students performed substantially worse than their same-age native Hong Kong peers in mathematics, reading, and science, even after controlling for socioeconomic status and psychological well-being. However, in Hong Kong, many immigrant students began school a year later than native children. When Suet-ling Pong takes this into account, the nativity gap shifts from negative to positive, indicating that immigrant students scored higher than their same-grade native peers. Immigrant repeaters also score higher than native repeaters. Suet-ling Pong assumes that this academic ''redshirting'' among certain immigrant groups may also be more prevalent in Europe and America. However, it is notable that Hong Kong immigrant pupils have higher performance than natives after control for their lower socioeconomic status and lower grades. This higher performance of lower class immigrants might be unique for China-oriented societies; at least you will not find this in Europe.

We hope that these five articles convince the readers that more in-depth and more adventurous analyses of these cross-national data are possible and should have more support of those agencies that collect these data.



## Reference

Foshay, A.W., Thorndike, R.L., Hotyat, F., Pidgeon, D.A., & Walker, D.A. (1962). *Educational achievement of thirteen-year-olds in twelve countries*. Hamburg, Germany: UNESCO Institute for Education.

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