

# Using student assessment to improve teaching and educational policy



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His research interests are cognitive abilities and thinking skills, self-concept and self-esteem and their structure and development, educational interventions promoting development of cognitive abilities and personality, educational assessment and evaluation research, as well as teaching and learning in higher education.

## Abstract

International and national assessment results, as well as the case of the Finnish comprehensive school, are used to discuss strategic questions of educational policy, teacher education and teaching.

## Introduction

Are students prepared to meet the challenges of the future? Do they have the knowledge and skills that are essential for full participation in society? These questions are central from the viewpoint of educational policy. The Programme for International Student Assessment (PISA) is an internationally standardised assessment, jointly developed by participating OECD countries, and administered to 15-year-olds in schools. The domains of PISA are mathematical literacy, reading literacy, scientific literacy and, since 2003, problem solving. Students have to understand key concepts, master certain processes, and apply knowledge and skills in different situations, rather than show how well they have mastered a specific school curriculum. This makes comparisons between countries possible and fruitful.

The PISA data shows that the correlation is very high on the country level between performance in reading, mathematical and scientific literacy. We should, therefore, look for general rather than country or subject-specific explanations for why some countries do better than others. First, money does not seem to be the answer. Countries with top results make relatively average investments in education. The influence of socioeconomic factors, especially parental education, is also relatively small. In other words the students' abilities are what counts. The results also show that the average yearly number of hours spent in school correlates negatively with PISA results on the country level. This indicates

that spending time in school is less important than the quality of the instruction. Much has been made of students' attitudes towards school. A closer analysis reveals that no country has managed to create a school system that produces excellent results combined with a very positive school climate. Maybe we should not be so concerned with maximum happiness for everybody, all of the time. A serious but positive school atmosphere seems to be more appropriate for learning.

There are two types of school systems with excellent or good results: many of the Asian and central European schools with large between-school differences, selection, testing and tracking, on the one hand, and the typically Scandinavian model of comprehensive schools, with small between-school differences, on the other. The countries with the best PISA results do, however, all manage to keep the between-student variation relatively low. In other words, the weaker students are not left behind. What makes the Finnish school system interesting from the perspective of educational policy is that it is the only comprehensive school system with top PISA results.

The success of Finnish students in PISA has transformed our understanding of the quality of the work done in our comprehensive schools. The performance of Finnish students in PISA seems to be attributable to several factors. Firstly, the role of schooling as a part of the Finnish history and cultural heritage is remarkable. Education of the people was used as a strategy in creating the nation. Thus, teaching has been and is still a highly regarded profession. Secondly, although Finland is a poor country as far as natural resources go, the educational system has been built to achieve a high general level and quality of education. Thirdly, a nationally coordinated curriculum is the basis of teacher training and tends to make work at school more

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systematic. It makes the knowledge and skills required for secondary education and adult life in Finland explicit. It also helps writers of textbooks match the content and approach of the curriculum and teaching methods used in the comprehensive school. Fourthly, a research-based teacher education at the masters level ensures a high standard of applicants for teacher training. This in turn enables a demanding standard to be set in teacher training. Finally, education is generally seen as a road to social advancement – and the comprehensive school makes it a quite realistic option for most students, regardless of their background. The students and their parents appreciate this. It also means the opportunity of further education is extended to the brightest potential students of the nation.

These are key elements in the social stability and economic success of a democratic society like Finland. On the other hand, the choices made concerning schooling and career are still far too stereotypical and adhere closely to the example set by the parents, which is not optimal from the vantage point of national educational policy.