

The Role of Educational Research in the Reform Process

Cordula Artelt
Bamberg University

*International Conference on Strategic Issues of Modernizing the
Hungarian Educational System*

03.09 2007, Budapest



Outline

1. Starting point for reforms in education in Germany: TIMSS and PISA
2. International Assessments and the need for national additions
3. The role of Educational research
4. Reforms in the Educational System in Germany
5. Measures to improve educational research in Germany



TIMSS - German students' proficiency in mathematics and science

- Difficulties with complex tasks requiring conceptual understanding
- Weak performance in scientific thinking and reasoning
- Only few high performing students – about 25 % of students show fundamental deficits in scientific and mathematical knowledge
- Only small learning gains over the school years
- Decreasing interest over the school career



PISA 2000 - *German students' proficiency in reading, mathematics and science*

- Low overall level; difficulties with complex tasks
- Large range of performance
- Close connection between social background and reading proficiency
- Underperformance of students from immigrant families
- Teachers have difficulty identifying weaker students



PISA 2003 - *German students' proficiency in reading, mathematics and science*

- Scores are not lower than in PISA 2000, but at a similar level (reading) or somewhat improved (maths and science).
- Again, a large range of performance scores in all three domains.
- Barely any improvement at the lower end of the performance spectrum.
- Challenge: to reduce the proportion of students in the potentially at-risk group.



International Large-Scale Assessments in Education

- High methodological standards in terms of
 - framework,
 - test development,
 - comparability ...
- Provide benchmarks for system monitoring (over assessment cycles)
 - for the average level of the focal population,
 - for specific subgroups,
 - on inequality ...



Limitations of International Large scale assessments

- What is tested
 - Literacy vs. national curriculum/standards
- Who is tested
 - age group / grade level / sample size
- How often assessment takes place
- How performance differences can be explained
 - Limitations of cross-sectional designs
 - Factors might not be included and levels not sufficiently covered...



Summative assessment of educational systems in general

Educational Research within Hungary

Supporting and fostering educational research within Hungary is a central element of the reform process

- It enables the country to monitor changes and to produce evidence from a within-system perspective.
- It allows to be flexible in terms of purposes and the frequency of assessments as well research questions


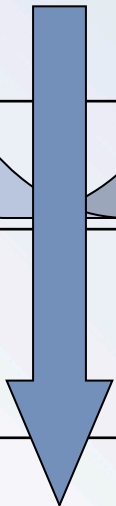


Educational research around certain measures

<i>level</i> \ <i>time</i>	before - planning	during - monitoring	after - evaluating
individual			
class (instruction..)			
context (home, school, peers) - (teacher training, curriculum)			
system (school system) - (Socio-economic and Cultural background),			



Educational research around certain measures

<i>level</i>	<i>time</i>	before - planning	during - monitoring	after - evaluating
individual				
class (instruction..)				
context (home, school, peers) - (teacher training, curriculum)				
system (school system) - (Socio-economic and Cultural background),				



Reforms in the Educational System in Germany

- Development of educational standards (outcome standards)
- Development of a monitoring system in Education
- Institute for Quality Development in the Education System
- Biennial independent report on the state of education within Germany (“Bildungsbericht”)



Measures to improve educational research in Germany

- Priority programs for educational research funded by the German Research Foundation
- Funding initiative* by the Federal Government (Minister of Education) for research in predefined areas in the field of education
- National extensions to large scale studies
- National Education Panel*



* in preparation

Thank
You

