

Measurement in education

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Measurement in Education – Test Scores and Beyond

By Stefa Hirsch

1. Information on the process of data collection as well as differentiated rates on participation and missing data provide an important context for the analyses of any survey-based data. This becomes even more important when data sets are compiled from different sources. (*Chapter 2*)
2. Individual survey non-response as well as non-response at the school level cause estimates of intergenerational dependency to be attenuated – the latter more than the former. Item non-response in income questions in turn leads to severe overestimation. (*Chapter 3*)
3. The observed increased correlation between parental education level and student performance in primary school is partly driven by more precise measurement. (*Chapter 4*)
4. Once there is a high stakes test or transition ahead, intergenerational mobility in terms of educational performance decreases; especially in the lower half of the test score distribution. (*Chapter 4*)
5. Early mathematics skills is not a unitary concept. Nonetheless, sum-scores of early numeracy tests can well be used to predict later achievement in mathematics. (*Chapter 5*)
6. Sample size is no substitute for data quality.
7. Strong segregation between methodology and empirical research is a threat to validity.
8. “At this point in our history, [...] we can process exabytes of data at lightning speed, we have the potential to make bad decisions far more quickly, efficiently, and with far greater impact than we did in the past.” (*Susan Etlinger*)
9. Data out of context lose their value.
10. Being nit-picky might not be helpful in terms of finishing things quickly, but it sometimes unveils new research questions and prevents premature or false conclusions.