

The use of test scores in secondary analysis

PIAAC Methodological Seminar

Paris, 14th June 2019

Presentation

The increasing availability of microdata from large-scale assessments of students and adults have spurred a great deal of research in labour economics and economics of education. Test scores from these assessments are often seen as better and more precise proxies of cognitive skills or human capital than years of schooling. Researchers using these data are however often unaware of how assessments are designed, and of how test scores are estimated on the basis of the answers provided by respondents sitting an assessment. Large-scale assessments are primarily designed to describe the distribution of proficiency in the population of interest, and are not intended to provide unbiased measures of the individual proficiency of any single respondent. This has important implications for their use in secondary, individual-level analysis. The purpose of this Seminar is to raise awareness about the methodology used to estimate test scores in large-scale assessments and to stimulate a reflection on how methodological choices made at the production stage affect the use of data in secondary analysis. The Seminar intends to bring together *users* and *producers* of this type of data, in order to stimulate an inter-disciplinary dialogue and reflect on how the production and the dissemination of the data could be improved in order to better serve the multiplicity of demands that these data are called to satisfy.

Provisional Agenda

09:00-10:45

Session 1 – Overview

Item 1. Welcome and introduction

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Item 2. The use of test scores in secondary analysis: an economist's perspective

Jesse Rothstein (University of California, Berkeley)

Item 3. The measurement of cognitive ability in large-scale assessments

Matthias von Davier (National Board of Medical Examiners)

Item 4. Discussions**Andrew Ho** (Harvard Graduate School of Education)**Edwin Leuven** (University of Oslo)*10:45-11:15: Coffee break***11:15-12:30****Session 2 – Applications****Item 5. Mixed-Effects Structural Equation Models****Lynne Schofield** (Swarthmore College)**Item 6. Factor Models in Economics Research****Sergio Urzua** (University of Maryland)**Item 7. Discussion****Irini Moustaki** (London School of Economics and Political Science)*12:30-13:30: Lunch break***13:30-15:00****Session 3 – Applications****Item 8. Putting test scores on an interval scale****Timothy Bond** (Purdue University)**Item 9. Discussion****Wim van der Linden** (University of Twente)**Item 10. The use of survey weights in regression analysis****Jeffrey Wooldridge** (Michigan State University)**Item 11. Discussion****Sabine Meinck** (IEA)*15:00-15:30: Coffee break***15:30-16:15****Session 4 - Roundtable and Open Discussion****16:15-16:45****Session 5 – Available Software****16:45-17:00****Concluding Remarks****Practical Information****Venue:** The seminar will be held in the Auditorium of the OECD Boulogne Building, at 46, quai Alphonse Le Gallo, 92100 Boulogne-Billancourt, France.**Registration:** To register, please complete the attached registration form and send it to piaac@oecd.org. Participation is free of charge.