Invited Symposium:
Beyond competencies – Potential of PIAAC for interdisciplinary research

Chair
Julia Gorges (Philipps-University Marburg, Germany)

Abstract
The OECD PIAAC study provides in-depth information regarding adult competencies in a wide range of countries. Hence, some refer to PIAAC as “PISA for adults”. However, PIAAC is more than that. Thanks to its references to research from different disciplines and to different data sources, PIAAC has stimulated much research beyond adult competencies. Using data from the PIAAC background questionnaire, researchers have tested established assumptions on adult learning, investigated participation in education, and used national longitudinal extensions of the PIAAC study and other related data sources.

This symposium brings together research beyond competencies from different disciplinary perspectives using a wide range of datasets. Using cross-sectional data from the first PIAAC data collection in 2012, MASSING explores the importance of participation in non-formal training in order to upgrade or to maintain skills among migrants in selected countries. In particular, this contribution will focus on how different policies in different countries might affect training participation and barriers to training. Drawing on data from the 1994–1998 International Adult Literacy Survey, the 2003–2008 Adult Literacy and Life Skills and the 2011–2012 OECD Survey of Adult Skills, MERONI focuses on overeducation and skill mismatch in different age cohorts and different countries. To identify skill mismatch and overeducation, this contribution looks at both skills and educational credentials. The contribution by HESSE uses the German longitudinal extension of PIAAC to investigate the role of motivation to learn and parenthood for participation in non-job-related training. The study provides insights into the neglected concept of adult motivation to learn. To look at PIAAC’s contribution in a broader context, HERNÁNDEZ-TORRANO & COURTNEY conducted a bibliographic analysis of publications using large-scale datasets in educational research. They describe the role of PIAAC data in current educational research alongside other large-scale assessments such as PISA. Each contribution takes a specific disciplinary perspective: sociology (MASSING), economics (MERONI), psychology (HESSE), and educational research (HERNÁNDEZ-TORRANO & COURTNEY). In this interdisciplinary symposium, disciplinary priorities and major topics building on PIAAC data will be highlighted and discussed.

Presentations
1. Title: Training participation of migrants and barriers to training – a cross-country comparison.
   Author: Natascha Massing (GESIS - Leibniz-Institute for the Social Sciences, Germany)

2. Title: An age-period-cohort approach to the incidence and evolution of overeducation and skills mismatch.
   Author: Elena Meroni (European Commission, DG Joint Research Centre)

3. Title: How compatible are parenthood and participation in further education and training? Findings from the German PIAAC longitudinal study.
   Author: Franziska Hesse (Philipps-University Marburg, Germany)

4. Title: Modern international large-scale assessment in education: an integrative review and mapping of the literature.
   Authors: Daniel Hernández-Torrano & Matthew G.R. Courtney (Nazarbayev University, Kazakhstan)
1. Training participation of migrants and barriers to training – a cross-country comparison.

Author (Presenter)
Natascha Massing (*GESIS – Leibniz Institute for the Social Sciences, Germany*)

Abstract
Lifelong learning is seen as an essential element so that individuals maintain and develop their skills in order to cope with changing demands in today's societies. In this research, I follow the human capital approach which assumes that investment in human capital has benefits for individuals but also for society. Thus, participation in training, which is one form of human capital, should create rewards and therefore there should be incentives for participation. However, research shows that migrants participate less in training than natives. Research on OECD countries also shows that migrants have lower chances on the labor market and lower educational attainment (e.g. OECD & European Union, 2015). Furthermore, qualifications of migrants educated in another country are often not recognized in the host country, or their skills do not match with the labor demands (Huddleston et al., 2013). This means that especially migrants could benefit most from participation in training. However, there are also reasons preventing individuals from participating in training, so-called barriers to training. I explore whether the barriers to training differ between migrants and natives, and also whether differences across countries can be found. The paper analyzes training participation of migrants across countries and compares their participation rates with native individuals using data from the Programme for the International Assessment of Adult Competencies (PIAAC). Doing this, I distinguish between natives, first- and second-generation migrants. Furthermore, I examine whether the same kind of barriers prevent these different groups from participating in training, and whether the reasons preventing training participation vary between countries in these groups. I discuss how policies in different countries might affect training participation and barriers to training.
2. An age-period-cohort approach to the incidence and evolution of overeducation and skills mismatch.

Author (Presenter)
Elena Meroni (European Commission, DG Joint Research Centre)

Abstract
This paper provides new evidence on the changes in the level and persistence of occupational mismatch across countries by investigating whether differences among generations (cohorts) are at the core of these changes. Using data from the 1994–1998 International Adult Literacy Survey, the 2003–2008 Adult Literacy and Life Skills and the 2011–2012 OECD Survey of Adult Skills, we estimate an age-period-cohort model in three European countries to examine the extent to which younger cohorts face a greater (smaller) risk of being occupationally mismatched in their jobs than their older counterparts. Two definitions of occupational mismatch are used, focusing on both educational attainment and literacy skills. Results indicate that countries present different patterns of evolution of occupational mismatch from older to younger generations according to which definition is employed (overeducation or skills mismatch). Different macro-economic and educational contexts may be at the core of these results, suggesting that tailored policy responses are desirable for effectively addressing the occupational mismatch problem.

3. How compatible are parenthood and participation in further education and training?
Findings from the German PIAAC longitudinal study.

Author (Presenter)
Franziska Hesse (Philipps-University Marburg, Germany)

Abstract
The transition to parenthood marks a critical life event and is accompanied by major impacts on the lives of new parents. Beyond the early stages of parenthood, parents need special support at transitions in the family life cycle which can be met in non-job related training. At the same time, however, the demands of parenthood may prevent parents from participating in further education. So far, little attention has been paid to the impact of parenthood on participation in further education and training. By weighing costs and benefits to evaluate further education opportunities, individuals are assumed to consider contextual conditions and personal aspects in their decision to participate or stay away from further education. Common barriers to adult learning include lack of time because of family responsibilities and work-related appointments. Despite contextual constraints, parents' motivation to learn may promote participation in further education. This study therefore aims to investigate the role of motivation to learn and parenthood for participation in non-job-related training. We draw on the German longitudinal extension of PIAAC (N = 2967) and compare parental versus non-parental participation, using the motivation-to-learn scale from the first PIAAC background questionnaire. Analyzing longitudinal PIAAC data further enables us to draw causal conclusions about the influence of parenthood and motivation to learn on participation in non-job-related training. Socio-economic and demographic factors such as parental sex, age, marital status, level of education and age and number of children are considered. Theoretical and practical implications will be discussed.
4. Modern international large-scale assessment in education: an integrative review and mapping of the literature.

**Authors**  
Daniel Hernández-Torrano & Matthew G.R. Courtney (*Nazarbayev University, Kazakhstan*)

**Presenter**  
Daniel Hernández-Torrano (*Nazarbayev University, Kazakhstan*)

**Abstract**  
Research in international large-scale assessment (ILSA) has become an increasingly popular field of study in education. Consequently, interest and debate in the field by practitioners, researchers, policymakers, and the public has grown over the past decades. This study adopts a descriptive bibliometric approach to map modern research on ILSA in education and provide an up-to-date picture of the recent developments and structure of the field. The analysis of 2,233 journal articles indexed in the Web of Sciences database revealed that ILSA research in education is an emerging field in a stage of exponential growth that has become increasingly international with recent substantive contributions from China, Spain, and Turkey. Research in the field is currently produced by a tupid network of scholars with diverse geographical backgrounds that engage frequently in national and international research collaborations. Also, the field is relatively interdisciplinary and has developed grounded on nine differentiated historical paths. The PISA program has received the greatest attention in the field, and a wide variety of topics have been addressed in the literature in the last decades, including equity and quality education, globalization and education policy, measurement and statistics, student motivation and self-concept, and interpersonal relationships. The paper concludes by pointing to the potential of future ILSA research to make use of new more relevant instrumentation, data linkages, and trans-regional collaborations.