# Paper Session:

**Cognitive skills in various social groups**

**Chair**

Jan P. Heisig *(Berlin Social Science Center, WZB, Berlin)*

**Presentations**

1. **Title:** What are the skills of parents of school-age children?  
   **Authors:** Saida Mamedova & Emily Pawlowski *(American Institutes for Research, USA)*

2. **Title:** Knowing teacher’s skills in Slovakia: Evidence for further education of teachers.  
   **Authors:** Olga Zelmanová *(National Institute for Certified Educational Measurements - NICEM, Slovakia)* & Zuzana Wirtz *(National Institute for Certified Educational Measurements - NICEM, Slovakia)*

3. **Title:** Inequality in quality: Population heterogeneity in literacy skills around the world.  
   **Author:** Claudia Reiter *(University of Vienna, Austria)*
1. What are the skills of parents of school-age children?

Authors
Saida Mamedova & Emily Pawlowski (American Institutes for Research, USA)

Presenter
Saida Mamedova (American Institutes for Research, USA)

Abstract
As a result of the COVID-19 pandemic, many children are participating in remote education due to school closures, creating the need for many parents to become more involved with helping their children with their schoolwork. PIAAC provides insight into the skills of the parents of school-age children, as well as other information about their characteristics and situations, an indication of how prepared these parents are to assist in their children’s education, including potentially planning and teaching lessons if schools are not providing instructional materials, reading instructions on assignments, and further explaining concepts. Previous research has shown a strong relationship between parents’ outcomes, such as education level, and the outcomes and skills of their children. With greater parental involvement in their children’s education, it is even more important to understand issues related to family literacy, as children with low-skilled parents may be at higher risk for learning loss due to their parents not having the necessary skills to support their learning. This study will focus on a selected group of European and North American countries that participated in PIAAC, including Finland, France, Italy, the United Kingdom, and the United States. Across these countries a significant amount of the adult population, approximately twenty-five to thirty percent of adults ages 16-to-65, are parents of school-age children. For this study, parents of school-age children are defined as those who have one or more child in the 6-to-17-year-old age range. This presentation will explore the skill levels of the parents of school-age children in the areas of literacy, numeracy, and digital problem solving. Additional information about the circumstances of the parents will also be examined, including details about their basic demographics (including gender and age), employment status (including full-time or part-time status and income), education and training participation, and living arrangements (including number of children, number of household members, and whether they live with a partner). This information about the skills and characteristics of parents of school-age children may be indicative of where parents may need additional assistance in supporting their children’s remote education and providing insight into what types of assistance might be useful.
2. Knowing teacher’s skills in Slovakia: Evidence for further education of teachers.

Authors
Olga Zelmanová (National Institute for Certified Educational Measurements - NICEM, Slovakia) & Zuzana Wirtz (National Institute for Certified Educational Measurements - NICEM, Slovakia)

Presenter
Olga Zelmanová (National Institute for Certified Educational Measurements - NICEM, Slovakia)

Abstract
We conducted research survey focused on teachers with OECD tool Education and Skills Online (PIAAC Online) as part of Slovak National research project of adult skills (PIAAC). In our PIAAC online study we were interested in those factors that might contribute to forming of teachers’ competencies, skills and teaching style as a part of Slovak national skills strategy. We analyzed cognitive skills (comparable to PIAAC), behavioral characteristics, career interest (RIASEC) profiles of Slovakian primary and secondary teachers and compared age and gender differences to grasp deeper view of those groups. Existing research indicates important correlation of cognitive skills between teachers and children’s academic achievement in school together with impact of other noncognitive factors that might play a role in teacher’s performance and their teaching methods. Understanding of teacher’s personality, competencies, skills and career interest provides important evidence for setting up recommendation for improving of teacher’s education in universities and also for better focusing of lifelong education and learning of teachers.
3. Inequality in quality: Population heterogeneity in literacy skills around the world.

Author (Presenter)
Claudia Reiter (University of Vienna, Austria)

Abstract
Education is a recognized source of demographic heterogeneity, with educational attainment, measuring the quantity of human capital, increasingly entering demographic analyses as an explicit dimension. However, the quality dimension of human capital, i.e. the skills people actually have, also matters greatly for many of the benefits of education and serves as an additional relevant source of demographic heterogeneity – but is still largely disregarded in demographic analyses. This research aims to accommodate this by incorporating a skills dimension into existing population distributions. Drawing on large-scale adult skills assessment surveys, I combine measures of literacy skills with population distributions by age, sex, and educational attainment for 45 countries. The resulting skills-adjusted education pyramids capture the “inequality in quality”, revealing considerable population heterogeneity in literacy skills between countries – with significant differences even within same age-, sex- and education-groups. This paper extends the literature on education as a demographic variable, stressing the need to additionally incorporate a skills dimension and providing empirical evidence for large heterogeneity in literacy skills among otherwise similar sub-populations. Pointing at gender, generational, and geographical gaps in skills-adjusted educational attainment, this research provides new insights into distributional aspects of human capital, with clear relevance for progress towards development goals.