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# GETTING ACQUAINTED WITH IEA AND ITS INTERNATIONAL COMPARATIVE STUDIES

## **SHORT DESCRIPTION**

IEA is a nonprofit international scientific society that conducts comparative pedagogical research worldwide. Since 1958, IEA has measured students' achievement in subjects such as mathematics and science (TIMSS), reading (PIRLS), and civic and citizenship education (ICCS), investigated students' computer skills (SITES and ICILS), and researched early childhood (ECES) and teacher education (TEDS-M).

In the context of COVID-19, IEA and UNESCO launched a study, in partnership with the European Commission (EC), which draws a more comprehensive picture of the pandemic's impact on global education: Responses to Educational Disruption Survey (REDS).

IEA's open datasets provide a solid evidence base for researchers, educators and policymakers, recognized by UNESCO as invaluable for monitoring progress toward the SDGs. Participants will learn about the development, design and implementation of IEA's large-scale assessments, and how access results that can be used by educators and inform evidence-based decisions.

Researchers interested in quantitative data on achievement will find exploration of IEA resources and opportunities for analysis valuable. Participants will develop good understanding of contexts and additional qualitative information, and together debate and develop interdisciplinary perspectives of IEA studies and their role in improving education, as well as challenges and limitations in using their results.

## **WORKSHOP RATIONALE**

The IEA, or the International Association for the Evaluation of Educational Achievement, is an international cooperative of national research institutions, government research agencies, scholars and analysts working to evaluate, understand and improve education worldwide. It is nonprofit and independent of any political or policy agenda. More than 60 countries are represented in the IEA network, and over 100 education systems participate in IEA studies. When a country participates, a representative sample of schools and students is invited to take the assessment. The participation of a country's schools and students helps IEA assess educational progress within that country, working together to identify the challenges and opportunities, to see what works, and to share practices and learn from other participating education systems. For more than 60 years, IEA has measured student achievement in subjects such as mathematics, science, and reading; conducted assessments on civic and citizenship education; investigated students' computer and information literacy; and researched early childhood and teacher education.

The IEA's mathematics, reading and science assessments are unique in the international study arena because they are curriculum-based, examining what students are expected to learn

(intended curriculum), what is actually taught in schools (implemented curriculum), and student outcomes (achieved curriculum). IEA works with the national research coordinators of participating countries to ensure that what is tested is appropriate for their students. Assessment questions are pre-tested (referred to as pilot or field testing) before the assessment is administered to ensure high-quality comparative standards.

IEA studies are designed by educators for educators to answer questions such as: What do students know and what can they do? Is student achievement improving over time? What practices and policies are associated with student achievement? IEA studies also explore school, home and other factors related to learning.

Although the studies are familiar to scholars and other education specialists within the subject areas of reading, mathematics and science, as well as experts interested in statistical analysis of the large-scale data on educational achievement worldwide, they remain less well known by researchers and practitioners that are not involved in IEA studies. The workshop forum will encourage exchange of such additional valuable perspectives. IEA research data may provide deeper insight into topics such as equity in education, gender matters, parental engagement and strategies, influence of student attitudes and the other contextual factors linked to educational achievement, with longitudinal datasets revealing the evolution of educational systems and their contexts over time.

Test procedures and quality assurance practices undertaken by the IEA for every study cycle are often sidelined by some users of IEA's resources, leading to malpractice in using and discussing the results of the studies. This workshop will encourage participants to debate the best use of the instruments (questionnaires and 'released' items from the tests), and will explain why rankings and comparisons without considering the contextual significance of the findings, or running analyses without accounting for the specific study and data design, may lead to inaccurate interpretation.

IEA helps members build their own knowledge, research capacity, and develop evidence-based policies to improve education, and is dedicated to supporting the work of researchers. This workshop will provide all interested researchers and educators with an overview of the cornerstones governing every IEA study - the IEA mission, approach to large-scale assessment in education, governance and survey operation procedures designed to deliver high quality instruments and data. Participants will have an opportunity to explore the wealth of available IEA resources for interdisciplinary inquiries, and acquire a solid understanding of the challenges, opportunities and limitations of IEA data, for in-depth research, to support educators, and for policymaking.

Participants will also learn about the IEA's intellectual property rights and procedures, and how to obtain access to restricted use data, the specially designed software, or use the instruments and/or items sensitively.

Last, but not least, workshop participants will be briefed on opportunities for further engagement with IEA's many open source publications, including the IERI Journal, Large-scale Assessments in Education, and the IEA Research for Education series of in-depth analyses based on IEA data, published in cooperation with Springer.

## **DURATION AND SIZE**

The workshop will be prepared for 3 hours duration. One hour will be dedicated to some hands-on explorations of the available datasets and other sources within their area of participant's interest.

## **BIO**

Dr Paulína Koršňáková is a Senior Research and Liaison Adviser with the IEA, responsible for developing institutional partnerships within IEA's mission, and facilitates research networking and supports capacity building and knowledge sharing to foster innovation and quality education for all.

She has a background in natural science and mathematics education, including teaching, curriculum development and research, and holds a PhD in psychology, and 20 years of experience of developing and implementing international large-scale comparative studies of education at the national, regional and international level.

## **LANGUAGE NOTE**

The majority of the source materials will be in English, however the workshop can be conveyed in Czech and Slovak languages.