

From International Assessment Data to Professional Development: Perspectives on Educational Evidence Across Contexts

Across education systems worldwide, increasing attention is being given to how educational actors and practitioners engage with data, research, and evidence to support school improvement, professional development, and educational change. International large-scale assessment studies (ILSAs), such as those conducted by the International Association for the Evaluation of Educational Achievement (IEA), generate psychometrically robust and internationally comparable evidence on educational outcomes and the conditions under which learning takes place. By documenting differences in achievement, equity, learning opportunities, and educational contexts across systems, these studies provide an important evidence base for educational policy and research.

The publication of large-scale assessment results often attracts considerable public and policy attention, but the pathways through which such evidence informs professional practice and school development remain less clear. This situation must be rectified, as international assessment programmes are intended not only to monitor educational systems but also to stimulate their improvement.

Research consistently demonstrates that the availability of data alone does not automatically lead to meaningful educational change. Rather, the interpretation, contextualization, and collective sense-making of educational evidence remain complex professional and organizational challenges, requiring not only supportive structures and processes but also the development of individual and organizational capacities to engage with data and evidence.

This symposium brings together perspectives from ILSA research, where educational data and evidence are produced on a regular basis, with research on how educational practitioners engage with and use such evidence in practice. In doing so, it explores how educational evidence becomes meaningful across diverse educational contexts and how it can contribute to greater educational equity worldwide.

The symposium is co-chaired by Paula Korsnakova (IEA) and Chris Brown (WERA's IRN RIEP), reflecting the collaboration between the IEA research community and IRN focused on Research-Informed Educational Practice. Building on ongoing international discussions concerning research use, data-based decision-making, and professional development, the symposium aims to foster dialogue between research on international assessment infrastructures and research on the processes through which educational evidence is interpreted, negotiated, and embedded within educational practice.

In the first contribution, "IEA Data and Research Outreach to Practice", Paula Korsnakova examines how evidence generated through international large-scale assessments such as TIMSS, PIRLS, ICCS, and ICILS can support educational research, professional learning, and educational practice. While these studies provide extensive evidence on student achievement, learning conditions, and educational equity across contexts, translating such evidence into meaningful and accessible resources for educators remains a significant challenge. Drawing on initiatives such as the IEA Research for Educators book series and the IEA Teacher Snippets format, the contribution explores opportunities and limitations of making international assessment evidence relevant for practitioners. It also discusses how large-scale assessment data can contribute to professional meaning-making and evidence-informed educational

improvement. In the second contribution, “Between Data and Dialogue: International Perspectives on External Support in Data-Informed School Development Processes”, Daniel Pöpl and Jana Groß Ophoff draw on findings from a scoping review of external support in data-informed school development. Based on 23 international studies, the paper analyzes how external actors — including coaches, facilitators, and critical friends — support schools in engaging with, interpreting, and using educational data and evidence for school improvement. The findings suggest that external support is most effective when engagement with data and evidence is embedded within collective learning and professional sense-making processes, while simultaneously supporting the development of individual and organizational capacity to engage with data and evidence.

In the third contribution, “What Drives Taiwanese Teachers to Teach CT and ICT? Self-Efficacy, CT Disposition, and Professional Development Needs Based on ICILS 2023 Data”, Chiao-Wei Yang, Ching-Yeh Wang, Chen-Shi Lee, and Meng-Jung Tsai use ICILS 2023 data from Taiwan to examine teachers’ ICT use, ICT self-efficacy, computational thinking dispositions, and professional development needs. Their findings suggest that teachers’ willingness and capacity to foster students’ ICT and computational thinking competencies are closely connected to their own competencies, beliefs, and dispositions, underlining the importance of targeted professional learning opportunities in digitally-oriented educational environments.

As discussant, Chris Brown will synthesize the contributions from an international comparative perspective and reflect on how educational institutions can support the development of individual and organizational capacities to engage with data and evidence. Drawing on recent work on epistemic capacity and epistemic infrastructure, he will consider the implications for evidence-informed educational practice in increasingly fragmented knowledge societies.