

ELINET Symposium

Computer-based assessment of reading literacy in international and national assessments: Mapping a way forward

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This symposium looks at recent developments in the computer-based assessment of reading literacy in international and national contexts. Following two presentations focused on recent developments in computer-based assessment of reading literacy in international assessments (PIRLS and PISA), we look at the development of a digital literacy assessment in Korea. The symposium concludes with a consideration of the implications of these studies for assessing reading literacy over the next several years.

Presentation 1: The Transition to Computer-based Assessment in PIRLS

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In 2016, PIRLS, the international assessment of reading literacy completed by students in grade four in over 50 countries, offered a separate assessment of online informational texts for the first time (ePIRLS), side-by-side with a paper-based assessment of literary and informational texts. This presentation draws on the PIRLS 2016 assessment framework and released items to compare how reading comprehension of informational texts is assessed across modes. The presentation also examines how the traditional assessment of literacy and informational texts will be combined with e-PIRLS in 2021 as countries consider the option of offering the assessment in digital format only. The paper concludes by considering how computer-based assessment in PIRLS reflects current conceptions of digital literacy and reading comprehension, and how the assessment can be expected to impact on national literacy curricula.

Presentation 2: The PISA 2018 Assessment Framework: Balancing Innovation and Trend

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PISA is an international assessment of reading literacy taken by nationally-representative samples of 15-year-olds in over 80 countries every three years. Before specific test items could be generated for PISA 2018, the Reading Expert Group made up of practitioners, researchers, psychometricians, and others, laboured over the design of the framework that ultimately guided the nature and form of the questions and the prompts on the assessment. This presentation offers insights into that process by two members of the assessment framework development teams. As insiders from the opening discussions through to the crafting of the final assessment framework report, the presenters share a unique critique of a process that was characterised by seeking a balance between innovation and trend. The presentation concludes by considering how newer conceptions and global literacy practices, such as digital literacy and multi-literacies, are represented in PISA 2018 reading literacy framework.

Presentation 3: Web-Based Digital Literacy Assessment for K-12 Learners: Its Design and Validation

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High-quality assessment of digital literacy is crucial to understanding students' literacy skills and practices. Such assessment also provides critical information that could be used in the evolution of appropriate teaching pedagogies to support students in developing the important skills required for the knowledge society of the twenty-first century. The focus of this presentation is a project led by Korean literacy scholars, with the goal of developing and validating a web-based digital literacy assessment system for K-12 learners in Korea. The presenters first describe the design framework for digital literacy assessment (i.e., digital literacy as a configuration of the skills and knowledge involved in information searching, meaning making, critical evaluation, text design, representation, and communication) with the specific assessment materials and items that were developed within the framework. We also discuss findings from our validation study using learners' verbal protocol data (e.g., think aloud) and human-computer interaction data (i.e., screen recordings, log files) generated during their performance on the digital literacy assessment. Finally, we discuss potential uses of the assessment for both research and pedagogical purposes (e.g., diagnostic, formative) as well as possible larger implications, such as the endeavor of making research-informed policies in literacy education.