

BEYOND DIAGNOSTIC ASSESSMENTS: THE EDIA ONLINE TEST PLATFORM AS A RESEARCH INSTRUMENT

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The main purpose of the eDia system is to provide regular feedback for the schools by means of regular online diagnostic assessments. The system consists of two main parts, a testing platform and an item bank. The item bank embodies the content of the assessments in reading, mathematics and science for the first six grades of the primary school. The platform supports item writing, test editing, test delivery and feedback of the results. As these functions may be utilized in any assessment, offering possibilities far beyond the paper-based tests, eDia has been utilized in a number of fields of research. This paper reviews the main studies which were based on the eDia platform and highlights the unique benefits of technology.

Beyond reading, mathematics and science, there are so far over 20 further domains, called minor domains, for which tests or test batteries have been implemented on the eDia platform. Instruments have been developed for supporting the kindergarten–school transition. First, the subtests of the DIFER test battery (a face-to-face instrument) were migrated to the electronic platform and a media effect study was conducted, a result of which indicated that the digitized version was not only more convenient to use, but objectivity and reliability had also improved on some subtests. Based on these experiences, a new school readiness test battery has been developed and optimized for online assessment, which can be used both in kindergarten and at the beginning of school as well.

A number of instruments have been developed for assessments of curricular areas and cross-curricular competencies such as writing skills, musical abilities, English, German and Russian as a second language, visual skills, learning to learn, health literacy, financial literacy, ICT literacy, civic competencies, inductive reasoning, dynamic problem solving, collaborative problem solving, creativity, and combinatorial reasoning. Tests and questionnaires for data-collection beyond the cognitive domain are also administered through eDia, such as motivation and social skills.

The eDia system has been used for the assessments of university student's preparedness at the beginning of their studies, and it is the data-collection instrument of the Hungarian Educational Longitudinal Program as well. It has been used for research in international collaborative projects in Finland (the Vantaa tablet study), China (exploring the component skills of dynamic problem solving), Namibia (scientific reasoning), Mongolia, Kazakhstan, and Azerbaijan (language learning in the latter three countries).

The results of the reviewed research will be discussed in a framework which classifies the studies into three categories depending on the role of technology, (1) as it made the data collection simpler and less expensive, (2) as it made the assessment more reliable and valid, and (3) when technology is an essential part of the instrument, since without eDia the assessment would not be possible.