CONCLUSIONS AND RESULTS OF AN ITEM DEVELOPMENT PROCESS CONCERNING ICT LITERACY

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A widespread use of digital technologies could be seen in the 21st century. At the same time an advance in knowledge and information exchange exploiting them is also observed (Fraillon, Schulz and Ainley, 2013). However, digital natives do not appear to be digitally competent (IEA, 2014). Students' use of ICT-s is not only characterized by limitations reflected in their overall level of digital literacy (MCEETYA, 2007), but there has even been a significant decline in their ICT literacy (ACARA, 2015). A better understanding of the underlying processes related to ICT literacy is needed so that education systems should fill students' competency gaps. This presentation focuses on introducing the development of a computer based, online performance assessment instrument to gauge grade 5-10 students' confidence in accessing information in order to measure a major aspect of ICT literacy. One of the aims of data collection was to estimate item parameters. The pilot test in which students were asked to find information on simulated websites was administered from May to June 2014 in Hungarian educational settings involving grades 5, 8 and 10 boys and girls (N=107) and was delivered through eDia online assessment tool. Following the pilot test, in March 2015, 16 items were chosen (Chronbach's α=.74) for analysis using Generalised Item Response Modelling Software to estimate difficulty and discrimination and visualize item characteristic curves. In terms of weighted fit, the weighted MNSQ was within the confidence interval of all items, proving that the items fit the model. Difficulty levels of the items were between 'hard' and 'easy' (Item Thresholds -1.78 and 2.29). The discrimination of all items proved to be moderate (weighted MNSQ 0.78 – 1.26). The person-item map showed that the items roughly covered the ability levels from – 2 to + 2 (WLE was between -2.92 and 2.95). All items proved to work appropriately according to WLE Avg. parameters. Further development of the number and elaboration of items will lead to an innovative, authentic, simulation-based online performance assessment instrument, devised in national context, offering immediate feedback. It will provide an opportunity to identify students' developmental characteristics in ICT literacy, which could suggest areas to improve.

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