

The Role of Technology in Education

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Abstract

This paper provides a review of the literature from 2010 to 2017 on student use of technology in Pakistan in Primary/early childhood education. Previous efforts to synthesize the literature are somewhat dated, non-specific about age range, and focus almost exclusively on literacy. Thirty five peer-reviewed articles from 15 countries, selected from a comprehensive search of the literature, were organized under five main categories: literacy, engagement, social interactions, mathematics, and miscellaneous topics. The overall effect size, based on only 10 studies and 43 measures was moderately high ($d=0.61$, $SD=0.50$). Considerable qualitative and quantitative evidence indicated that technology had a significant impact on literacy development. Fewer studies, mostly qualitative in design and small in sample size, reported that technology had a positive impact on engagement, social interactions, and mathematics skills. A handful of studies provided qualitative evidence that technology had a positive impact on sequencing, visual perception, creative thinking, and fine motor capability. Methodological concerns included limited sample sizes and descriptions, not documenting the consistency and accuracy data of collection tools, the extent of adult intervention, and the limited range of technology tools used.

Keywords Primary/early childhood education, literacy, engagement, social interactions, mathematics, Use of technology