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Cognitive Development And Use Of Digital Media By Infants And Preschoolers: A Systematic Review

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Digital media are very present in people's lives. Parents and/or caregivers turn on the TV or often deliver tablets or cell phones to infants and preschoolers to calm them down. The objective of this study was to identify the evidence on the relationships between the use of digital media by infants and preschoolers and their outcomes. It is a review to answer the question: "What does the literature show about the use of digital media related to the cognitive development of infants and preschool children?" For the systematic research, the following databases were used: BVS/LILACS, PUBMED, ScienceNews and Wiley On Line Library. Descriptors searched were: infants, toddlers, children, impact, children education, learning and media. The articles found were of the last decade, distributed in categories related to: 1. Impact of the media in children's cognition (positive and negative effects); 2. Experimental Research; 3. Amount of time of use of the media; and 4. Recommendations from expert groups on the subject. It was observed that the cognitive impact depends on the age group, the type of programming and the time of visualization. In infants who watch TV, the impact is negative for language, but they learn more with interactive and touch media than with TV or videos. Preschoolers are seeing excess screen media suggesting problems of attention and delay in language, obesity and aggressiveness, depending on the contents seen. Experimental studies show that good quality child education may be beneficial for the

cognitive development of children; however, we see stimulation, physical activity and social interaction being replaced by the use of TV. Others claim that prolonged use of digital media affects sleep quality, development, and physical health of children. Researchers recommend limit the number of hours on the screen and select programs. This study ends with recommendations to minimize the problem.

Keywords: Media. Infants. Preschool children. Learning Early childhood education.

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TPACK contributions on teaching and learning Portuguese language

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This study shows how a group of pre-service teachers apply digital technologies (TD) in the learning of the Portuguese language process, in primary school. In line with the underlying ideas of TPACK (Technological Pedagogical Content Knowledge), pre-service teachers planned the inclusion of TD in learning of Portuguese language. They considered: the different technological tools and their pedagogical potential; how a tool may engage students in activities and promote collaborative working strategies; and the understanding relation between technology tools and content, in order to a better learning of a given programmatic topic. It was observed that Pre-service teachers use TD in a productive and varied way. In fact, the software and selected applications allowed to develop creative and stimulating pedagogical situations. The evidence showed that pre-service teachers value the TD in the concretization of reading comprehension