Chapter 6
Investigation of Parents' Digital Literacy Levels Regarding the Use of Mobile Technology in Early Childhood: Opportunities and Measures

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ABSTRACT

This study aims to understand parents' knowledge and perceptions about mobile technologies and their attitudes towards their children's use of mobile technologies at an early age. According to the preliminary findings of the study, although parents frequently use tablets, smartphones, or laptops in their daily lives, they expect their children to stay away from these technologies. The results of the study suggest that parents need to reconsider their approach to digital parenting. In addition, parents will receive recommendations on selecting appropriate content, implementing effective filtering and security measures, and choosing content suitable for the intended

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use of mobile technologies. These recommendations will help parents improve their digital parenting skills and positively impact their technological literacy, enabling them to be effective role models for their children.

TRENDS IN RESEARCH ON THE USE OF MOBILE TECHNOLOGIES IN EARLY CHILDHOOD

Mobile devices, have become a permanent part of life and can now perform almost all computer operations. With smartphones providing access to the internet, the time that individuals spend on devices has increased (Genc, 2014). The fact that so many can constantly access information and communication technology (ICT) tools such as phones, tablets, computers, and televisions, regardless of time and space, makes it easy to become dependent on screens (Kalogiannakis & Papadakis, 2017; Papadakis & Kalogiannakis, 2020; Lin et al., 2024). According to October 2023 data, there are 5.3 billion internet users worldwide. This rate corresponds to 65.7 percent of the world population (Petrosyan, 2023). Likewise, the use of mobile applications is a similar rate, and the number of mobile application downloads is steadily increasing (Nikolopoulou et al., 2023). This intensive usage rate has increased considerably with the improvement of internet speed and the rapid updating of content to meet the needs of users, especially after the COVID-19 outbreak that halted face-to-face learning worldwide. As this usage rate has increased in recent years, so has the use of mobile devices as a learning tool, the potential of which has increased as technology develops (Fu & Hwang, 2018; Longman & Younie, 2021; Statti & Villegas, 2020).

M-learning, is the process of learning through the use of mobile devices anytime, anywhere, with no time or space restrictions (Nikolopoulou et al., 2023). A review of mobile applications used by children under the age of six reported that the use of mobile applications increased children's success in the development of academic, cognitive, and social-affective skills, especially in the development of mathematics (Papadakis et al., 2017; Papadakis, Kalogiannakis, & Zaranis, 2016a, 2016b; Papadakis, Kalogiannakis, Zaranis, et al., 2016; Zaranis et al., 2013), language, and computational thinking (Griffith et al., 2020; Papadakis et al., 2016c; Papadakis et al., 2016d; Papadakis et al., 2017a; Papadakis et al., 2017c; Papadakis et al., 2021). In addition, early exposure to STEM learning is crucial as it cultivates skills that not only enhance students' interest in STEM but also boost their educational achievements in this field, in turn, broadening their career prospects as they progress in life. Furthermore, the pervasive presence of smart mobile devices in educational settings worldwide has revolutionized teaching methodologies across all age groups