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"Innovation, cooperation and evaluation in early computer science"

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Abstract

The author discusses the importance of introducing fundamental concepts of computer science and informatics (CSI) in early childhood education and presents the RINko project as an example of a systematic approach to developing digital competences among preschool children and educators. In todays society, digital technologies form an integral part of everyday life, making the development of digital literacy from an early age essential for successful participation in the information society. Within kindergarten settings, digital content should be integrated thoughtfully and purposefully. Educators play a crucial role in creating a stimulating learning environment and guiding children toward the safe and creative use of digital technology.

RINko project focuses on the systematic development of fundamental CSI knowledge among preschool children. The project includes Slovenian kindergartens, 60 innovative groups, 53 professional educators, and approximately 480 children. It is coordinated by the Faculty of Education and the Faculty of Electrical Engineering, Computer Science and Informatics in Maribor. Activities include thematic activity weeks, development of learning scenarios, collegial observations, professional training sessions, and collaboration with external institutions. Cooperation among partners is supported through a shared web repository that enables systematic documentation, evaluation and exchange of teaching materials.

The empirical part consists of two studies. The first analyzes the quality of professional training on learning scenarios, where participants reported high satisfaction. The second examines educators' attitudes toward developing computational thinking skills in kindergartens.

Results indicate that educators recognize the importance of these skills, although their practical implementation remains limited. The findings highlight the need for further professional development and stronger systemic support.

Keywords: Early Childhood Education, Digital Literacy, Computational Thinking, Preschool Educators, RINko Project.