

**Exploring the Relationship Among Coding, Computational Thinking and Problem Solving
in Early Elementary School Students [Symposium]: Manuscript in Press**

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Abstract

As more young children learn to code, it is vital understand how coding influences early development. In this study we explore the relationship between learning to code and unplugged (non-coding) problem-solving skills. Children ages seven to nine participated in a six-week coding curriculum (CAL-KIBO) utilizing the KIBO robot. Participants received assessments of coding proficiency, computational thinking and problem-solving skills. Unplugged problem-solving skills improved over the course of the curriculum and were significantly correlated with end-of-study coding proficiency. Results indicate that learning to code can improve problem-solving skills, particularly in children who generalize the knowledge gained from coding into computational thinking skills. Implications for future elementary coding initiatives are discussed.