

Examining Instructional Planning and Implementation in the Context of an Integrated Computer Science Professional Development Program for Elementary Teachers

Amanda Nolte
University of Delaware
United States
anolte@udel.edu

Hilary Mead
University of Delaware
United States
hmead@udel.edu

Chrystalla Mouza
University of Illinois Urbana-Champaign
United States
cmouza@illinois.edu

Rosalie Rolon-Dow
University of Delaware
United States
rosa@udel.edu

Lori Pollock
University of Delaware
United States
pollock@udel.edu

Abstract: Elementary schools provide a natural entry point to computer science (CS) education, yet elementary teachers spend most of their instructional time in literacy and math. One way to bring CS in elementary schools is through integrated approaches. In this work we present a professional development (PD) program that helps elementary teachers integrate CS with content and culturally relevant pedagogy to create accessible CS instruction. Qualitative data were collected from five teachers who attended the year-long program. Findings indicate that all teachers fully integrated CS with content and culturally-relevant pedagogy; however, such integration focused mostly on literacy and closely paralleled what was presented in PD. Implications are drawn regarding the design of PD programs that help teachers integrate CS in elementary classrooms.

Acknowledgements

This work is funded by a grant from the National Science Foundation: Award #1923483.