From Superficial to Foundational: Integrating Cultural Relevance into Computer Science Curriculum

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Abstract: Female and racially minoritized groups continue to be underrepresented in computer science (CS) and STEM careers, despite ongoing efforts to diversify the field. One way to promote the success of minoritized students in CS education is to incorporate culturally relevant pedagogy (CRP) into CS curriculum and instruction. This work explores the ways that teachers integrated CRP in their lesson plans after participating in CRP-focused professional development (PD) sessions delivered during a week-long PD aimed at improving and diversifying CS education. Our analysis of the lesson plans reveals that teachers integrated CRP at levels ranging from superficial to foundational. At the superficial level, teachers treated CRP as an "add-on" strategy with minimal relevance to the lesson content. At the foundational level, CRP was central to student mastery of core content learning. This work contributes to our understanding about how teachers approach the concept of relevance when integrating CRP in CS education. Findings have implications for approaches to PD design that support teachers in integrating CRP in CS education, as well as other STEM classrooms.