We are the Earth: Ancestral Computing for Sustainability

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Keywords: computer science education, cultural responsive pedagogy, english language learners

Abstract

Underserved populations often navigate the public school system with fragmented identities, especially within computer science education, one of the most segregated. Drawing from decolonial and sociocultural learning theories and through a Critical Narrative Inquiry, this research reveals how student inquiry led a schooling community to build positive identities and academic success. I followed Itzel for three years across informal and formal learning environments. I detail her molding of ancestral computing, a "funds of [ancestral] knowledge" approach to solve complex problems. For example, Itzel and her peers identified a problem of food insecurity and revealed an awareness that unpacked food deserts in our communities. She leveraged her computer science learning as an extension of her scholarly activism. This process fed the transformation of an abandoned lot to a community garden on campus. Teacher education programs and school reformers can learn about transforming Eurocentric learning environments into positive ecologies for underserved communities.

References


