Strategies for Engaging Urban Youth in “Informatics Thinking”

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The CHIPS program (Computer High: Informatics Project for Success) is a weekly two-hour afterschool learning experience that focuses on informatics and computing. Informatics thinking encompasses how information technology can be applied to real-world challenges and opportunities, including health, security, marketing, logistics, education and entertainment. This afterschool program is situated in an urban magnet school that focuses on technology. The H L Harshman Middle School enrolled 586 students during the 2014-2015 school year and over 78% receive free or reduced lunch. The average number of student participants is 20, which includes 18 males and two females. The multi-ethnic students consist of seventh and eighth graders. This case study research is a study of the development of this afterschool program. The research question is to what extent did this program prepare students for the possibility of computing and information technology as their career choices. The study includes multiple sources of information, including classroom observations, student data, faculty program perceptions, and teacher and student “exit tickets.” Students will complete a career technology survey at the end of the program. The data analyzed will also focus on program themes to understand the complexity of the case, (Yin, 2003). The study will also include a narrative describing the complexity and limitations to the study. The research conclusions include the experience of the participants as they participated in this project, which allows for a deeper understanding of the program and future program enhancements (Lincoln & Guba, 1985).

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