

Stony Brook University The Graduate School

Doctoral Defense Announcement

Abstract

Urban STEM Successes in the Bronx: Moving Away from the Deficit Model

By

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This study examined a number of science, technology, engineering and mathematics (STEM) focused urban high schools located in the Bronx that maintained high graduation rates. The research explored the educational philosophies and practical, operational decisions at the schools that might account for their success in graduating students. Using a multiple case study method, the beliefs and decisions made by four Principals, the experiences of four teachers and four student support personnel in four unscreened admission Bronx schools were compared. The purpose was to identify patterns or themes that they had in common when creating or selecting school courses and curriculum, hiring and developing teachers and support personnel, organizing and scheduling students into courses and supporting students within the schools.

The four focus schools in this study were chosen from the 78 least selective, high schools in the Bronx). The schools had the attributes of success that surpassed other schools in their comparison cohort, and they were identified by evaluating their graduations rates, science and math course offerings and state exam results. Additional study data were obtained by interviewing three personnel within each school using similar, but not identical sets of questions. The focus of the questions was academic philosophy of the school, courses offered in science and math, support for struggling students and the relationship between administration and teachers. The interviews were coded for common themes and cross analyzed between schools and each person's position in the school.

The findings revealed that the schools shared: strong leadership, supportive school cultures, high teacher quality with professional development support. Student centered planning were key to school success and increased student performance. Further aspects of the characteristics of their success included highly focused ninth grade orientations, the development of effective support structures, with a balance between adults caring for student emotional needs and applying academic pressure.

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Time: 2:00 pm

Dissertation Advisor: Keith Sheppard

Place: Location: Virtual Conferencing – Please contact Judy Nimmo, Graduate Program Coordinator, for Zoom access: judith.nimmo@stonybrook.edu