

A MIXED METHODS STUDY OF A STATISTICS PATHWAY FOR COMMUNITY  
COLLEGE STUDENTS PLACED INTO DEVELOPMENTAL MATHEMATICS

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by

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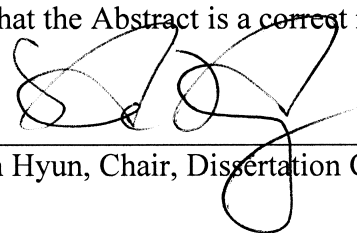
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Low completion rates for developmental mathematics sequences and in gateway mathematics courses prevent a majority of community college students from achieving transfer goals. This explanatory mixed methods case study examined an open-entry, accelerated, two-course mathematics sequence culminating in transfer-level statistics. Of the beginning cohort, nearly all of whom were Latino or African American, 86% successfully completed the sequence and performed well on questions from the nationally-normed CAOS exam. Student interviewees repeatedly attributed their success to growth mindset, consistent with their high scores on the Adult Dispositional Hope Scale. Observations substantiated ways that classroom interactions supported and reinforced students' new sense of competency regarding mathematics. With regard to contextualization, students' motivation seemed to derive from challenging statistics content rather than direct applicability or relevance. These findings have important implications for educational equity since lengthy developmental mathematics sequences have a disproportionately negative impact on underprepared students of color.

I certify that the Abstract is a correct representation of the content of this dissertation.

  
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Dr. Helen Hyun, Chair, Dissertation Committee

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