Research and Evaluation
Orange County Public Schools

OCPS Application to Conduct Research
2017-18 Cover Page for Executive Summary

Instructions. First, save this PDF file to your hard drive. Then, on your saved copy, complete all sections to serve as a cover page for your executive summary/abstract submission. The Research and Evaluation (R&E) department requires a one-page executive summary or abstract of the study findings to be submitted within 45 calendar days of the Research Notice of Approval (R-NOA) expiration. Please include an introduction, overview of the study, research questions, and findings. Should you have questions about the application process, please consult the Application Process Guide on the OCPS Research and Evaluation (R&E) website or contact the department at 407.317.3370 or research@ocps.net.

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Research Study/Project Title

An Examination of the Algebra 1 Achievement of Black and Hispanic Student Participants in a Large Urban School District's Mathematics Intervention Program

The views and opinions expressed in these summaries are those of the authors and do not necessarily reflect the position of Orange County Public Schools.

AN EXAMINATION OF THE ALGEBRA 1 ACHIEVEMENT OF BLACK AND HISPANIC STUDENT PARTICIPANTS IN A LARGE URBAN SCHOOL DISTRICT'S MATHEMATICS INTERVENTION PROGRAM

Executive Summary

submitted by Elethia N. Bronson

The mathematics achievement gap between Black and White as well as Hispanic and White students has been well documented nationwide and in the school district of study. Much has been written in observance of the achievement gap, yet markedly less research has focused on practices and interventions that have improved mathematics performance for Black and Hispanic students. Consequently, this study examined the Algebra 1 achievement (indicated by student scale scores on the Florida Standards Assessments Algebra 1 End-of-Course exam) of Black and Hispanic students participating in a mathematics intervention program as compared to the Algebra 1 achievement of their similar non-participating peers in one large urban school district.

Descriptive statistics and inferential statistical analysis via the one-way ANOVA and the independent samples *t*-test were utilized. Further quantitative analysis was conducted focusing on the mean scale score differences among intervention program participants in varying course structures, summer days attended, and school socioeconomic status. The study found that Black and Hispanic 7th grade program participants significantly outperformed their similar non-participating 7th grade peers and non-participating Black and Hispanic 9th grade students. No statistically significant differences were found among program participants who attended the summer preview camp for different numbers of days. Black and Hispanic intervention program participants enrolled in a double-block Algebra 1 course numerically outscored their single-

period program peers overall and when disaggregated by race/ethnicity and prior year achievement level.

The findings indicate the intervention program has the potential to improve Algebra 1 achievement and increase access to advanced-level mathematics for Black and Hispanic students. This study contributes to the scant literature on successful mathematics intervention programs targeting Black and Hispanic students. Studying the implementation of the program in schools demonstrating success could provide insight, enabling other schools to replicate an environment where Black and Hispanic secondary mathematics learners thrive.