Comparing the Perceptions of High School Teachers in High and Low SES Contexts
Towards the Role of the Graphing Calculator in Mathematics Instruction

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Research Apprenticeship Report Abstract

The National Council of Teachers of Mathematics [NCTM] (2000) has been at the forefront in advocating for reform in mathematics curriculum, instruction and assessment to improve the mathematics achievement of all students. For this reason, in the discussion of the Equity Principle, the NCTM offers specific tools for achieving equity in the mathematics classroom, with technology being one such tool. While, in general, physical access to graphing calculators is high, issues pertaining to equity when using graphing calculators arise more from the experiential access; that is, the nature of graphing calculator use. This study aimed at investigating teachers’ perceptions of the role of graphing calculators in the mathematics instruction of students from different socioeconomic (SES) schools. Four teachers (two from a high-SES school and two from a low-SES school) volunteered to participate in the study and data were collected mainly through interviews.

The findings revealed that the participants’ perceptions of the nature of graphing calculator appeared to be strongly influenced by the various SES contexts and that the low-SES school’s respondents appeared not to involve their students in lessons that capitalized on the powerful characteristics of graphing calculators.