PREDICTORS OF READING AND MATH ACADEMIC SUCCESS IN PENNSYLVANIA CHARTER SCHOOLS

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Abstract

The charter school movement, established to implement innovative educational methods that improve student outcomes (Nathan, 1996), necessitates further research on successful charter schools. Using a multivariate prediction design, this quantitative study sought to address the relationship between charter school success and demographic and structural variables by asking, Is there a relationship between reading academic success or math academic success and ethnicity, special education status, socioeconomic level, school size, student-teacher ratio, academic hours, certified teachers, per-pupil subsidy, and years in operation? Backward elimination of ex post facto data from the Pennsylvania Department of Education website produced models with socioeconomic level and special education status ($R^2_{adj} = 0.42$) showing the best model of fit accounting for 42% of the variance in reading academic success and socioeconomic level, special education status, and certified teachers ($R^2_{adj} = 0.28$) accounting for 28% of the variance in math academic success. Notably, child poverty (socioeconomic level) was an indicator of both reading and math success and school funding (per-pupil subsidy) was an indicator of math success in Pennsylvania’s charter schools, which echoes success patterns in traditional public schools. This study revealed that the achievement gap does not seem to be remedied by Pennsylvania charter schools. The implications of the study revealed charter schools are highly influenced by demographic variables; these schools need to battle inequity and break the ties between demographics to student academic results.