

ABSTRACT

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A Comparison Of Student Achievement, Self-Esteem, And Classroom Interactions In
Technology-Enriched And Traditional Elementary Classrooms With Low

Socioeconomic Students

(Major Professor: Lajeane Thomas)

The purpose of this study was to compare the attainments of elementary students in technology-enriched classrooms and students in traditional classrooms, while considering performance levels in student achievement, self-esteem, and classroom interactions. Student achievement was measured by the reading and mathematics sections of the *Iowa Tests of Basic Skills* (ITBS) and the *California Achievement Test* (CAT). Composite self-esteem, as well as subscale self-esteem levels, was measured by the Coopersmith Self-Esteem Inventories (CSEI), and classroom interaction analysis measurements were conducted using an adaptation of *Flanders Interaction Analysis System*.

Intact classes from 5 Louisiana elementary schools were randomly assigned to either treatment or control groups in a quasi-experimental design of the time-series type. Treatment classrooms included a variety of technology hardware and software but control classrooms did not. The sample was composed of 211 low socioeconomic students of various backgrounds, races, and ability levels.

Analysis of the achievement and self-esteem data was conducted using univariate analysis of covariance (ANCOVA) procedures and classroom interaction data were examined using chi-square processes. ITBS reading analysis resulted in no significant differences, but CAT reading analyses were statistically significant. ITBS mathematics and CAT mathematics scores were found to be statistically significant. Regarding student self-esteem, the areas of Composite Self-Esteem, School Self-Esteem and General Self-Esteem were found to be statistically significant although no statistical significance was found for either Home Self-Esteem or Social Self-Esteem. Classroom Interaction Analyses during the fall and spring of the school year found a significant difference between type of classroom (technology-enriched or not) and type of verbal interactions occurring within those frameworks, with treatment groups being more student-centered and control groups being more teacher-centered.

Results of this study indicated that the presence of classroom technology had a positive effect on the mathematics achievement of the low socioeconomic elementary school students although influence reading achievement remained inconclusive. In addition, classroom technologies appeared to have positive effects on overall self-esteem, general self-esteem, and school self-esteem, and tended to produce more student-directed learning opportunities. School systems should consider the acquisition of additional classroom technologies although further research is needed to replicate these findings.