

A study on the relationship between theater arts and student literacy and mathematics achievement

Inoa, R., Weltsek, G., & Tabone, C. (2014). A study on the relationship between theater arts and student literacy and mathematics achievement. *Journal for Learning through the Arts: A Research Journal on Arts Integration in Schools and Communities*, 10(1).

Abstract:

Past studies have shown positive relationships between the arts and academic achievement when the arts are integrated into language arts, mathematics, and science classes. This study investigated the effects of the Integrating Theater Arts Project (ITAP) which integrates the theater arts into a traditional language arts curriculum. The sample consisted of sixth and seventh grade students enrolled in a high poverty urban school district. Findings indicated that students in arts integrated classrooms tended to outperform their counterparts in both math and language arts. The authors concluded that integrating theater arts education into traditional curricula may promote academic achievement among participating students.

Key Findings:

Results showed that students whose language arts curricula were infused with theater arts often outperformed their control group counterparts, who received no arts integration, in both math and language arts. Students in the theater arts program significantly outperformed their control group counterparts in a number of cases: math achievement among sixth grade students, both language arts and math achievement among sixth grade males, and math achievement of sixth grade Hispanics.

Significance of the Findings:

Findings of this study are encouraging since they predict academic benefit to students who participate in a theater arts related intervention. While statistical significance was found predominantly among sixth grade males, the results of this study do not diminish the benefits that such an intervention can have on females and students in Grade 7, among whom statistical significance was not found. In most instances where significant differences were not found between experimental and control groups, ITAP students still outperformed control group students of the same grade, gender, and race or ethnicity classification. We may thus understand theater arts infusion as a strategy that benefits students of all races and ethnicities, both males and females, in both sixth and seventh grade. The benefits of a theater arts program for low income students in urban school districts, specifically, are shown throughout this study. Considering the barriers faced by many minority, male youths living in low-income urban areas, such benefits imply further investment in theater arts integration programs would be worthwhile.

Methodology:

Eight schools were matched by size, demographics, and performance on the state's assessment. A multi-stage cluster randomized design was used to select four schools for the treatment and four to serve as a control group with no arts integration. While all eight schools received the standard language arts curriculum, teachers in the treatment group participated in professional development outside of the classroom consisting of strategies, lesson planning, and arts integration philosophy. These teachers were expected to use these lessons in their classrooms. The primary outcomes measured for analysis were student proficiency scores in language arts literacy, consisting of reading and writing skills, and mathematics; subgroup variables were gender, grade level, and race and ethnicity. Outcomes for students who participated in ITAP and those who did not were compared while testing for differences between each group's math and language arts proficiency levels. Additional analysis controlled for gender, race, and ethnicity.

Limitations of the Research:

The most notable limitation to this study was the lack of statistically significant results. Even though students who participated in ITAP often outperformed students in the comparison level subgroups by seemingly substantial margins, these differences were rarely statistically significant, possibly due to small sample sizes. Additionally, while teachers in the treatment group were provided with professional development opportunities throughout the study, no programmatic details are given besides amount

of hours per year and no follow-up regarding the actual implementation of theater arts integration strategies in the language arts classroom is mentioned. Any possible influence of quality or regularity of arts instruction on outcomes was not considered in the data analysis that followed.

Questions to Guide New Research:

Future research should look to replicate the type of analyses seen here among larger populations to see if statistically significant differences would be present in a larger sample. Studies forthcoming may consider how an integrated theater arts curriculum might relate to the development of skills intrinsic to math achievement (i.e. problem solving, reasoning, analysis and abstract thinking), or on academic subjects besides mathematics and language arts. Future studies might attempt to explain why theater arts infusion was especially effective for sixth grade males as opposed to other demographic groups. Future research might also examine more closely the professional development provided to teachers and the actual implementation of arts integration in the classroom to see if quality or regularity of instruction has an effect on outcomes.

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