Relationships Between Instrumental Music Participation and Academic Achievement In Low SES Students

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2011-2012 School year

- 1 High School-grades 9-12 (810 students)
- 1 Middle School- grades 7-8 (365 students)
- 1 Intermediate School-grades 5-6 (339 students)
- 4 Elementary Schools- grades K-4 (880 students)
- 2 Parochial Schools- grades K-6 (116 students)
- 1 Early Childhood-PreK (159 students)

Total = 2,669 students
Poverty Impacts Achievement

• Low-SES students are often At-Risk for academic failure

• National high school dropout rate is 25%

• Jobs that require more than a high school diploma have become more prevalent in today’s society

(Balfanz, Bridgeland, Moore, & Fox 2010)
External Environment Contributes to School Readiness

• Many impoverished children lack supervision, resources and role models in the home

• Many of these children enter the school system behind grade-level

• Many students attend high poverty schools unable to provide a competitive edge

  (Catsambis & Beveridge, 2001)
No Child Left Behind

- 100% Student Proficiency by 2014
- Increased instructional time in Core subjects
  - Reading
  - Mathematics
- Additional time on reading and math in Academy
- Decreased instructional time for the Arts

Winfield Intermediate School: Band/Orchestra
2006-07: 5 days X 40 minutes = 200 min/week
2011-12: 3 days X 35 minutes = 105 min/week
Subjects in Each Program Type

5th Grade  N = 172
- Instrumental: 28%
- Instrumental Low SES: 23%
- Academy: 15%
- Academy Low SES: 34%

6th Grade  N = 148
- Instrumental: 36%
- Instrumental Low SES: 29%
- Academy: 13%
- Academy Low SES: 22%
Music as a Protective Factor

- Research recognizes participation in and exposure to the Arts is conducive to countering effects of poverty

- The number of Low-SES students is often underrepresented in Fine Arts classrooms

  Fitzpatrick (2006); Schellenburg (2005); Vaughn (2000)
Winfield Attic Instrument Program

- Administered through *volunteer* non-profit organization
- Funded through teacher payroll deductions
- Community-monetary contributions and instrument donations
- Instruments are maintained by school district
- Student cost: $60 per year
Reading Scores

5th Grade

6th grade

Music  Academy

FRL  Non FRL

FRL  Non FRL
Math Scores

5th Grade

- Music: FRL 72, Non-FRL 86
- Academy: FRL 76, Non-FRL 82

6th Grade

- Music: FRL 90, Non-FRL 92
- Academy: FRL 82, Non-FRL 80
Conclusion

• A statistically significant relationship was found between instrumental music participation and standardized test scores for:
  – 6th Grade Reading: Instrumental music scores were higher
  – 6th Grade Math: Instrumental music scores were higher
  – 5th Grade Reading: Approached significance

• Duration - more months of band/orchestra instruction = increased achievement

• Impact of the study’s results on administrator support for instrumental music.... 😊
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