An Experimental Evaluation of Multiple Arts Field Trips

Year 3 Results

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Overview

• Research Question:
  1. Do students experience social-emotional and academic benefits from multiple field trips to cultural institutions?
  2. Do effects persist over time following treatment?

• Research Design:
  • Randomly assign 4th and 5th graders at 15 elementary schools to receive 3 culturally enriching field trips throughout the school year and measure the impact on student social-emotional and academic outcomes.
    • High Museum of Art
    • Alliance Theatre
    • Atlanta Symphony Orchestra

• What we add to previous research:
  1. Experimental design - what is the CAUSAL effect of arts-focused fieldtrips.
  2. Multiple trips to 3 different art institutions
  3. Large, urban school district serving primarily minority and low-income students
  4. Longitudinal study - follow students after they experience treatment
Overview

• Findings
  • We find no effect on students’ desire to participate in the arts nor on social emotional measures of empathy, social perspective taking, and political tolerance
  • Treatment students show
    • Higher desire to consume arts in the future
    • Higher levels of tolerance
    • Greater conscientiousness
  • Intervention seems to affect students’ behavior and academic outcomes most when they enter middle school
    • Treatment students experience
      • Higher test scores
      • Higher course grades
      • Fewer behavioral infractions
      • Fewer absences
Motivation:

• Evidence of cultural field trips declining
  • Increase in schools canceling field trips (Ellerson & McCord, 2009)
  • Cultural institutions report fewer student groups attending and that adult attendance at art institutions is also declining (Rabkin & Hedberg, 2010)
  • Teachers report decline in arts education and field trips, particularly among disadvantaged students (Government Accountability Office, 2009)
    • Principals reported pressure from accountability standards and tight budgets
Previous literature

• **Observational studies**
  • Student involvement in the arts is associated with higher academic performance (Ludwig, Boyle, & Lindsay, 2017; Jægar and Møllegarrd, 2017; Ruppert, 2006;)
  • Students who attend cultural institutions experience academic and social emotional benefits in the short term (Lacoe, Painter, & Williams, 2016; RK&A, 2018)

• **Experimental studies (GOLD Standard)**
  • Students experience an increase in tolerance, critical thinking, empathy, content knowledge, and desire to consume art from visiting art museums or theater (Bowen, Greene, & Kisida, 2014; Greene et al, 2018; Greene et al., 2014; Kisida, Greene, & Bowen, 2014)
  • Students in an arts integration program demonstrated reduced discipline, increased writing test scores, and increased compassion (Bowen & Kisida, 2019)
Research Question

• Research Question:
  1. Do students experience social emotional and academic benefits from multiple field trips to cultural institutions?
  2. Do effects persist over time following treatment?

• Hypotheses
  • Expect positive gains in social emotional constructs such as tolerance and social perspective taking
  • Expect positive gains in student desire to consume arts
  • Expect no significant effect in academic achievement
Research Design: Randomized Control Trial

• **Treatment Group**: Field trips to each of the Woodruff Arts Center art partners
  • High Museum of Art
  • Atlanta Symphony Orchestra
  • Alliance Theatre

• **Control Group**: Business as usual

4th & 5th Grade Randomized → Survey in Fall → 3 Field Trips → Follow-up Survey in Spring
We estimate the effect of:

- 3 field trips in 1 year
- 6 field trips in 2 years
- 1 year following treatment
- 2 years following treatment
Data

• 15 elementary schools in a large urban school district
  • Approximately 2,000 Students

• Student Surveys
  • Interest in art consumption and participation
  • Social emotional measures
  • School engagement
  • Conscientiousness- Survey effort

• Administrative records
  • Georgia Milestones
  • Courses and grades
  • Attendance records
  • Discipline records
**Results: Art Consumption & Tolerance**

**Treatment Effect of Students Desire to Consume Art and Tolerance**

- **Desire to Consume Art:** Combined scale of desire to attend art museums, symphony performances, and live theater

- **Tolerance:** “I believe people can have different opinions about the same thing.”

- **Careless Answering:** Survey effort measure

Notes: *** p<0.01, ** p<0.05, * p<0.1 Results are shown in standard deviation effect sizes.

**Desire to Consume Art:** Treatment students have a higher desire to consume the arts by 9.1% of a standard deviation than control students.

**Tolerance:** Treatment students report greater levels of tolerance by 13.5% of a standard deviation than control students.

**Careless Answering:** Treatment students are less careless when answering survey questions by 12% of a standard deviation than control students.
Summary: Art Consumption & Tolerance

- Treatment students express a **greater desire to consume arts, greater tolerance, believing people can have different opinions, and are more conscientious** than control group students.

- Treatment effects are measured in the same year as treatment.
  - We only have survey data from all 3 cohorts in the first year of treatment.

- We see **no effect** on other social emotional outcomes of empathy and social perspective taking.
  - Evidence that students had difficulty understanding questions on the survey.
  - Finding no effect doesn’t mean that the treatment did not affect students on these outcomes, but that we may be unable to detect the effect.
Results: Behavioral Outcomes

Treatment Effect on Student Absences

Treatment students are .6 percentage points less absent than control students

Notes: *** p<0.01, ** p<0.05, * p<0.1
Results are shown in standard deviation effect sizes. Georgia Milestone scores as well as course grades were standardized within grade level. First Treat indicates if a student received treatment in one year, and Second Treat indicates if a student received treatment two years in a row.
Summary: Behavioral Outcomes

• We find significant behavioral differences between treatment and control group students once they enter middle school
• Treatment students have fewer infractions and are absent less often than control students
• The pattern across treatment conditions is mixed
  • Prior to 6th grade, students have few reported infractions
  • Treatment effect estimates are imprecise
Results: Academic Outcomes

**Treatment Effect on Georgia Milestones**

- Treatment students score 10.5% of a standard deviation higher than control students on end of year tests.

**Treatment Effect on Course Grades**

- Treatment students earn higher grades than control students by 22.8% of a standard deviation.

Notes: *** p<0.01, ** p<0.05, * p<0.1

Results are shown in standard deviation effect sizes. Georgia Milestone scores as well as course grades were standardized within grade level. *First Treat* indicates if a student received treatment in one year, and *Second Treat* indicates if a student received treatment two-year in a row.
Summary: Academic Outcomes

• We find significant test score and course grade differences between treatment and control students once they enter middle school.
• Treatment students score higher on the Georgia Milestone end of grade exams and have higher course grades than control group students.
• The pattern across treatment conditions is consistent.
• Some evidence that these effects may be concentrated in cohort 1 students.
Takeaways

• First experimental study to find positive effects on student behavioral and academic outcomes from attending arts-focused field trips
• First study to show effects multiple years past treatment
• Some evidence that treatment effects are concentrated for students in cohort 1
• The treatment is a relatively low-touch intervention, so the fact that we see positive results is significant

Next Steps

• Inside the Black Box: Understanding teacher and student experiences with field trips
  • Teacher focus groups
    • Working with a handful of schools in the study to better understand teachers’ perspective of the intervention
  • Student interviews
    • Talking with students to understand how the intervention impacted them beyond what we capture in survey data
Supplementary Information
Sample Survey Items: Art Consumption

• If your friends or family wanted to go to an art museum, how interested would you be in going?
• Visiting art museums is fun.
• I plan to visit art museums when I am an adult.
• Art is interesting to me.
• I feel like I don’t belong when I’m at an art museum.
• I feel comfortable talking about art.
• I would tell my friends that they should visit an art museum.
• Do you think your friend would enjoy a field trip to an art museum (such as the High Museum of Art)?
Sample Survey Items: *Social Perspective Taking*

- How often do you attempt to understand your friends better by trying to figure out what they are thinking?
- How often do you try to think of more than one explanation for why someone else acted as they did?
- Overall, how often do you try to understand the point of view of other people?
- How often do you try to figure out what emotions people are feeling when you meet them for the first time?
- In general, how often do you try to understand how other people view the situation?