



Fine Arts in Math Education

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Abstract

Many students in today’s education system sit bored in their mathematics classroom. Teachers are focusing on mathematics alone to improve test scores, which is counterproductive. With the incorporation of fine arts in mathematics, students are more motivated to learn. This study investigates the integration of fine arts in mathematics and how it affects student learning.

Introduction & Research Question

Fine Arts is important in math education because it allows all types of learners to expand their knowledge beyond traditional mathematics. Often times, math is taught in a traditional way to ensure that students will have improved test scores. This traditional way of teaching, which is supposed to help students learn more, actually ends up hurting their growth as mathematicians. Fine arts can improve motivation, confidence, concentration and many other life skills beyond mathematics (Smith, 2009).

Will integrating fine arts into mathematics help to improve student understanding?

If fine arts is incorporated into mathematics, then students will become better mathematicians because fine arts allows them to expand their knowledge past traditional mathematics.

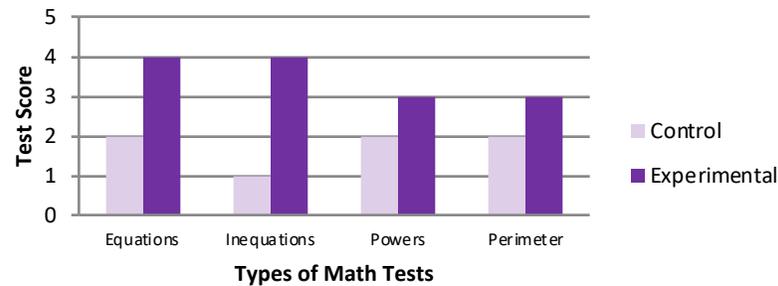
Research Methods

- A study done by Anja Brezovnik in 2015
- Before experiment, comparing control group and experimental group based on student grades in fine art and mathematics from previous school year (fine art grades differed, but mathematic grades were similar)
- Teachers simultaneously taught control and experimental group
- Control group was taught lessons in traditional way
- Experimental group was taught lessons integrating fine arts
- After each completed learning topic, students were given a math test, overall completing 4 tests (equations, inequations, powers, perimeter)

Results

- The four tests were graded on a scale of 1-5
- The control group scored a 2 in equations, a 1 in inequations, a 2 in powers, and a 2 in perimeter
- The experimental group scored a 4 in equations, a 4 in inequations, a 3 in powers, and a 3 in perimeter

Math Test Scores



Discussion

- The experimental group scored higher on all four math tests
- These results show that integrating fine arts does affect student learning in a positive way
- If this were done in the classroom I am in now, I believe the students would respond positively to integrating fine arts
- To integrate fine arts into my current classroom, I would do projects like teaching perimeter using architecture

Conclusions

- Integrating fine arts in mathematics helps to improve student understanding of the content area
- Based on study, I will incorporate fine arts into mathematics in my future classroom to support learner growth like using architecture to teach perimeter as done in the study
- Fine Arts is usually pushed to the back burner, and now students can be creative while learning the core subjects
- In my future classroom I will strive to incorporate fine arts to mathematics and other content areas

References

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