

Evaluation of Mad Science®: Educational Science Enrichment for Children

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EVALUATION OF MAD SCIENCE: SUMMARY OF KEY FINDINGS

Background:

This research study was conducted in the fall of 2005 by Char Associates, an independent consulting firm, based in Montpelier. Established in 1996 by Dr. Cynthia Char, Ed.D., Char Associates draws upon over 25 years of experience in educational program design and evaluation, and has clients throughout the United States. Current and previous work includes projects for Apple Computer, IBM, Harvard Graduate School of Education, and numerous US Department of Education and National Science Foundation projects. This national study examined whether exposure to Mad Science positively affects children's interest in, and understanding of, science, as compared to children who have not had exposure to Mad Science.

Methodology:

The educational impact of Mad Science on school children was assessed by selecting a random sample of third grade students representing four regions across the United States. Classrooms within each region were randomly assigned by the evaluation team to either "Experimental" (Mad Science) or "Comparison" (Non-Mad Science) groups. Analysis of the surveys involved both quantitative and qualitative data analysis.

Summary of Key Findings:

1. INCREASED SCIENCE CONTENT KNOWLEDGE

Students who participated in Mad Science experienced a gain of 41.3% in their science content knowledge vs. only 6.4% experienced by comparison group students who did not participate in Mad Science.

2. INCREASED INTEREST IN SCIENCE

Students participating in Mad Science experienced an increase of 12.22% in their interest in science vs. only a 2.3% increase experienced by comparison group students who did not participate in Mad Science.

3. INCREASED LIKING OF SCIENCE

Students participating in Mad Science experienced an increase of 5.6% in the extent to which they liked science vs. a decline of .83% experienced by comparison group students that did not have Mad Science.

4. INCREASED ATTITUDE THAT SCIENCE IS "FUN"

Students participating in Mad Science showed an increase of 18.6% in their attitudes that "science is fun" vs. only a 1.5% increase for comparison group students that did not have Mad Science.

5. MAD SCIENCE HAD A MAJOR IMPACT ON KIDS' INTEREST IN SCIENCE

a. **Lowered the number of students with a "Low" Interest in Science.** After exposure to Mad Science, the percent of students that reported "Low" interest in science decreased by 17.16%. This compares to a 8.89% decrease experienced by comparison group students that did not have Mad Science.

b. **Increased the number of students with a "High" Interest in Science.** After exposure to Mad Science, there was an increase of 49.07% in the percent of students that reported a "High" interest in Science compared to their interest level prior to Mad Science. Students who were not exposed to Mad Science experienced no change (0%).

6. INCREASED INTEREST IN SCIENCE in Low Interest Students

Thirty-nine percent of students, with a "Low" level of interest in science prior to exposure to Mad Science, experienced an increase in their level of interest in science to either Moderate or High after experiencing Mad Science.

7. INCREASED INTEREST IN SCIENCE in Moderate Interest Students

Twenty-nine percent of students, with a "Moderate" level of interest in science prior to exposure to Mad Science, experienced an increase in their level of interest in science to High after experiencing Mad Science.

Further Details:

For more information about this educational study, please contact: Sharon King, B.Sc., Director Research & development, Mad Science Group, sharonk@madscience.org, www.madscience.org,