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SEWART GARDNER
MUSEUM

“Thinking Through Art”

Key Findings Overview

The “Thinking Through Art” research study at the Gardner Museum reveal significant, positive impacts of multi-visit arts education programs on critical thinking skills in elementary children in grades 3-5, and provides a common language for describing and identifying the kind of learning that can take place in a museum setting, and demonstrates that learning to look at art is a particularly effective way to help elementary students develop critical thinking skills.

Results of the three-year study found statistically significant differences in the use of five of seven critical thinking skills used by students when looking at and talking about art. By comparing data from students who participated in the Gardner Museum’s *School Partnership Program* over three years to that of Boston students who did not participate in the program, participation in the program itself can be identified as a factor that impacts the use of critical thinking skills.

The study makes two major contributions to our understanding of art education: First, the identification of a Critical Thinking Skills rubric offers a formal definition of seven key components, and an evidence scale, that museum and school educators can use to assess use of critical thinking skills students in grades 3-5 employ when looking at works of art; Second, the study reinforces the value of a multiple visit program that offers students regular practice in looking at and thinking about works of art over time.

Specific findings include:

- **Students in the SPP generated significantly more instances of critical thinking skills both in individual poster interviews and group “untours.”** When the treatment and control group interviews were analyzed for differences in the amount of CTS used, statistically significant differences emerged. Of the seven broad CTS, there were significant differences between the treatment and control groups for five skills (Observing, Interpreting, Associating, Comparing, and Flexible Thinking). For all of these CTS, treatment students the skills more often than did control students.
- **Students in the SPP had more to say, and were more likely to provide evidence for their thinking.** Treatment students had more to say about works of art than did control students, making more observations and noticing more details about art objects. On average, treatment students talked about twice as much as control group students, a significant difference. Students’ use of evidence to support their statements about artworks also differed significantly between treatment and control groups, with treatment students significantly more likely to offer justification for their ideas.

The study also guided Gardner Museum educators on ways to improve the *School Partnership Program*, including a shift to a teaching approach called VTS (Visual Thinking Strategies). Co-authored by cognitive psychologist Abigail Housen and museum educator Philip Yenawine, the VTS is based on Housen’s theory of aesthetic development and is designed specifically for novice viewers. VTS starts with asking three questions to prompt students to make observations and provide evidence for their ideas: (1) What’s going on in this picture?; (2) What do you see that makes you say that?; and (3) What more can we find?

By slowing down and carefully looking at and discussing works of art at the Gardner Museum, students have unique opportunities to apply previous experiences and knowledge to puzzle over meaning in the artworks—in other words, the students make meaning on their own terms. Throughout the group discussions, museum educators respond neutrally to each comment, accepting all ideas equally by paraphrasing the students’ comments and link similar ideas so that the students learn to listen, respect, and share ideas with their peers. (For more information on VTS, go to www.VUE.org.)

Additional findings and statistics are available in the full “Thinking Through Art” research report, available through the Gardner Museum.