Program Evaluation Report

Artful Citizenship Project
Three-Year Project Report

The Wolfsonian, Inc.

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Executive Summary

Artful Citizenship is an arts-integrated social studies curriculum project designed to provide third- through fifth- grade students and teachers with the tools necessary to:

- develop visual literacy skills;
- implement social science content across academic content areas;
- create opportunities for integrated artistic response.

Artful Citizenship is a pilot educational program funded by the US Department of Education, Arts in Education, Model Development and Dissemination Grant Program. It was developed by The Wolfsonian-Florida International University (FIU) in partnership with Miami-Dade County Public Schools (M-DCPS), Visual Understanding in Education (VUE), a non-profit organization that develops learner-centered methods that use art to teach critical thinking and visual literacy, faculty from the FIU College of Education, and a team of independent education researchers and evaluators from Curva and Associates, a private research and evaluation firm.

The Wolfsonian and its partners recently completed the three years of funded activities that included development, field testing, implementation, evaluation, and dissemination of Artful Citizenship as part of the core social studies and language arts curricula in the third, fourth and fifth grades at three Miami-Dade County public elementary schools. All three schools have high percentages of students from low socioeconomic backgrounds who are at risk of academic failure. An additional school with similar demographics was included to serve as a comparison group for evaluation purposes.

The evaluation addresses the central objectives of the program: teaching visual literacy in order to influence children's character and social development, and, ultimately, to improve academic achievement, as measured through norm-referenced tests and criterion- referenced test (Florida Comprehensive Achievement Test). The psychosocial dimensions included in the evaluation were Art Self-Concept, Art Enjoyment, Academic Self-Concept, and School/Civic Orientation.

The project focused on the following evaluation questions:

Question 1: To what extent does participation in the Artful Citizenship program affect students' ability to interpret visual images?

Question 2: Do students who participate in the Artful Citizenship program have greater gains in psychosocial measures (e.g., self-efficacy, civic orientation) than children who do not participate in the program?

Question 3: What is the association between visual literacy and psychosocial measures?

Question 4: What is the association between visual literacy and student achievement in reading and mathematics?

The significant findings were as follows:

- **Students who received the Artful Citizenship program for three years had significantly higher growth rates in visual literacy than comparison group students.**

  The Artful Citizenship program was effective in developing visual literacy skills. The growth rate of the treatment group over the project period was demonstrably higher than the growth rate in the comparison school – comparison group students experienced virtually no growth in visual literacy. In contrast, students who received the Artful Citizenship program gained nearly a full point (on the ten-point scale) over the three-year project.

- **There was a strong relationship between growth in visual literacy and growth in student achievement in both reading and mathematics.**

  In the three treatment schools, growth in visual literacy strongly correlated with three of the four measures of student academic achievement – two for criterion-based achievement and one for norm-referenced achievement. Correlations between growth in visual literacy and achievement were between .35 and .40, extremely high figures for variables associated with student achievement. These relationships did not manifest themselves in the comparison school.

- **The psychosocial scales were not trustworthy.**

  There were five psychosocial scales in the original design. The researchers collapsed selected items for two scales into a combined scale. Even then, reliability coefficients were below acceptable levels. Additionally, predictive and construct validity were not evident in their associations with other variables. For example, there was no relationship between participation in the program and changes in the four

psychosocial measures, nor between psychosocial measures and student achievement.

A second part of this evaluation was a formative assessment of how the Artful Citizenship program was delivered by teachers in the classroom. By observing and interacting with art and classroom teachers, the researchers were able to gain insights into details in the curriculum that worked well in the classroom and those that would benefit from revision. Researchers also got to see how the support of principals in schools was a crucial dimension in the quality of program fidelity – how closely teachers adhered to the curriculum.

In order to collect data from the field, site visits were conducted at the three elementary schools participating in the project over the three-year period. A qualitative assessment tool was developed by the evaluation team for use in the site visits in grades 3, 4 and 5. The visits encompassed two-days in each school, during which time interviews were conducted with teachers and administrators, and observations were made of the teachers in their classrooms. Researchers assessed student dynamics, project products, and school and classroom climate. The results were transcribed and content analyzed in search of common and contrasting themes.

The implementation findings were as follows:

- **Learning Visual Literacy led to the development of students' critical thinking skills.**

  Students in the Artful Citizenship classrooms demonstrated critical thinking skills through their use of evidential reasoning – the ability to provide logical and factual support to their statements. Using the Visual Thinking Strategies© (VTS) method, students quickly learned to support their assertions with evidence, frequently using "because" statements in their responses.

  Critical thinking skills were not limited to art and social studies. Teachers and administrators told the evaluators that Artful Citizenship filtered through to other areas of the curriculum including language arts, mathematics, and writing.

  The curriculum fostered collaboration among students by facilitating a process of building on the ideas of others. Students readily adopted the logic and language of the VTS© method, with its emphasis on linking and synthesizing student ideas.

- **The curriculum promoted good citizenship skills, cooperation, respect, and tolerance for the views of others.**

  The visual literacy portion of the curriculum encouraged participation by all students, regardless of cultural background or language ability. Students felt free to express themselves without fear of being judged right or wrong. The consistent observation across classrooms, grade levels and schools was a healthy exchange of ideas and

respect for the opinions of others. The Artful Citizenship social studies and artistic response curriculum, with its explicit focus on the positive aspects of family, community and culture, complemented and built upon this result.

- **The curriculum was effective with Limited English Proficient students.**

  Teachers and administrators commented that the Artful Citizenship curriculum seems well-suited to students new to English, helping to improve their vocabulary and writing skills. Students with limited English felt more comfortable in the Artful Citizenship setting, with its emphasis on respecting the ideas of other students.

- **Teachers found Artful Citizenship curriculum materials to be effective, easy to use, and developmentally appropriate for their students.**

  While using an art-based approach was new for most classroom teachers, they were impressed by the results they saw in their students. The curriculum offered them sufficient flexibility to select materials that were relevant to their particular settings and student needs. Teachers reported that the following curriculum activities worked exceptionally well: keeping travelogues, constructing dioramas, and researching of community events or traditions.

- **All teachers were under extreme time pressure simply to stay up with the required general curriculum. As a result, implementation of the social studies component of the curriculum was uneven across schools and classrooms within each school.**

  Teachers found that insufficient time to deliver the curriculum was the biggest challenge in the implementation of the project. Other teachers had trouble properly spacing and sequencing the lessons. More importantly, another contributing factor on teachers at the participating schools has been the increased pressure to improve school and student performance on the Florida Comprehensive Achievement Test (FCAT).

- **Continuous feedback in the evaluation process worked to improve all aspects of the Artful Citizenship curriculum, training, and instruction.**

  Artful Citizenship was a work-in- progress over the course of the project. Curriculum changes were influenced by teachers' feedback to project staff. Training in VTS© techniques, project meetings, and on-site technical assistance were refined over three years. Project staff, teachers and evaluators developed open channels of communication and each group was influenced by the others.

Conclusions and Discussion

The Artful Citizenship curriculum is remarkable in many ways. The vision of the program is that in learning to be more visually literate, students will also improve their critical thinking abilities, which will, in turn, lead to a wide array of improved outcomes: achievement in other subject areas, self-confidence and self-esteem, respect for the opinions of others, and a stronger understanding of community and culture.

The association between growth in visual literacy and growth in reading and mathematics achievement, as measured on Florida's high-stakes standardized tests, is an exciting finding in many ways. It is a vindication of the claims of many art educators that critical thinking learned in art classes extends to other subject areas as well.

It was surprising that the association between visual literacy and reading and mathematics achievement was obtained only in the treatment schools, the three schools that received the Artful Citizenship program. One would not anticipate this finding. Rather, one would expect that a student who progressed in visual literacy in the comparison school would enjoy the same achievement gains as well. What this anomalous finding suggests is that it is not the level of visual literacy on an assessment instrument that matters, but instead it is the process of learning visual literacy through Visual Thinking Strategies© that made the difference.

In other words, perhaps of equal importance as the artistic dimension are the methods in VTS© that encourage the use of evidence in argument, the attention to the opinions of others, and the respect and interest in other cultures that offer different contributions to the social environment. It is not just <u>being</u> visually literate, it is <u>becoming</u> visually literate in a particular way that encourages the critical thinking that was clearly observed in the site visits, and was measured in the standardized achievement tests. As Housen and Yenawine explain it,

> Over time, students grow from casual, random, idiosyncratic viewers to thorough, probing, reflective interpreters….They are first encouraged to find meaning based on past experiences (legitimizing what they know), and to become grounded storytellers….The process first depends on group interaction and works toward individual problem solving motivated by personal interests. As students develop their connection to art, they exercise a wide variety of cognitive skills that are useful in many contexts. Indeed, in all locations where VTS© has been tested, both classroom and test performance has been seen to improve, and the effect in all cases has been attributable to VTS©. (VUE Web site: http://www.vue.org)

It was disappointing not to find a programmatic impact on psychosocial variables such as art self-concept, academic self-concept, school orientation, and others. The measurement of these constructs was flawed, lacking both reliability and validity. It will be important in future research to align these outcome variables to the specific curriculum. Measuring student gains in areas that were not explicitly covered in the curriculum does not explicitly assess the effectiveness of the program.

This evaluation study shows that integrating art in the curriculum is not just “Art for art’s sake,” but clearly contributes to students’ critical thinking and measurable academic achievement as well. In fact, it would not be surprising to find that such curricular “enhancements” may be the best test preparation the schools can provide

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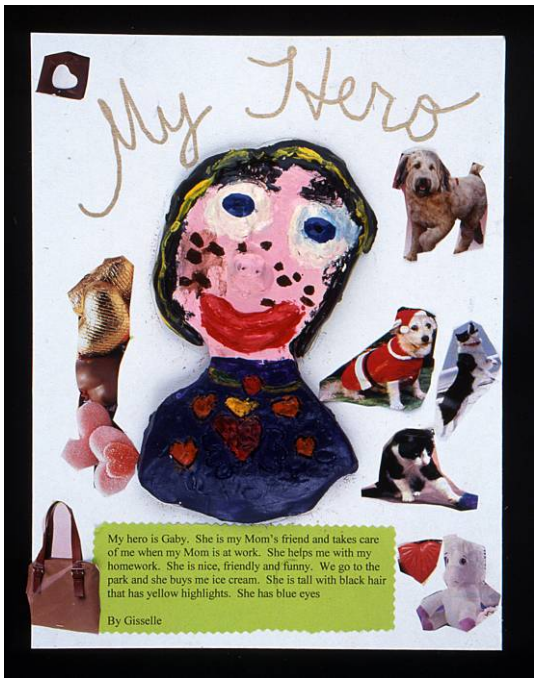
Introduction

The Artful Citizenship Project and The Wolfsonian

Artful Citizenship is an arts-integrated social studies curriculum project designed to provide third- through fifth- grade students and teachers with the tools necessary to:

- develop visual literacy skills;
- implement social science content across academic content areas;
- create opportunities for integrated artistic response.

To meet these objectives, Artful Citizenship created an innovative research-based teaching and learning model that provides teachers with a visual literacy methodology for empowering students to learn how to "read" and deconstruct the visual images, messages, and symbols that increasingly permeate their everyday lives. This model enables teachers to use images and artifacts to engage students in exploring ideas and issues central to social studies and active citizenship and in creating artistic responses that relate to the curriculum and ultimately foster student character through the understanding of "good citizenship."



Artful Citizenship is a pilot educational program funded by the U.S. Department of Education, Arts in Education Model Development and Dissemination Grant Program. It is being developed by The Wolfsonian-Florida International University (FIU) in partnership with Miami-Dade County Public Schools (M-DCPS), Visual Understanding in Education (VUE), faculty from the FIU College of Education, and a team of independent education researchers and evaluators from Curva and Associates.

The Wolfsonian and its partners recently completed three years of funded activities that included development, field testing, implementation, evaluation, and dissemination of Artful Citizenship as part of the core social studies curricula in the third, fourth, and fifth grades at three Miami-Dade County public elementary schools that have a high percentage of students from low socioeconomic backgrounds who are at risk of academic failure. The participating schools included Miami Gardens (91.7 percent of students qualify for Free/Reduced

Lunch), Phyllis Ruth Miller (79.2 percent of students qualify), and Fienberg-Fisher (87.2 percent of students qualify). An additional school with similar demographics – Miami Shores Elementary (71.9 percent of students qualify for Free/Reduced Lunch) – served as a comparison group for evaluation purposes only.

The Wolfsonian, located in Miami Beach, Florida, is a museum of modern art and design, as well as a research center. It is an AAM-accredited museum that promotes the examination of modern art and design to enhance the understanding and appreciation of objects as agents and reflection of social, political, and technological change. Its collection contains artifacts primarily of North American and European origin, dating from 1885–1945. The objects are interpreted to explore key issues in design history, particularly the way design has both altered and been altered by cultural change, industrial innovation, and strategies of persuasion. The mission of The Wolfsonian is to use this collection to educate a broad audience about the ways art and design have reflected and shaped human experience through its exhibitions, publications, and academic and public programs.

The Artful Citizenship teaching and learning model utilizes the best practices for teaching visual literacy skills gained from The Wolfsonian's two proven art education programs – the award-winning *Artful Truth-Healthy Propaganda Arts Project*, created in 1998, and the *Page at a Time* program, which is in its tenth year. Both of these programs provide interdisciplinary learning experiences that reflect the NAEP 1997 Arts Report Card vision of Creating, Performing, and Responding as integral parts of arts education and assessment. Both have been successfully implemented throughout Miami-Dade County, and *Artful Truth*, throughout the State of Florida as well. Building on the methodology developed in these programs, Artful Citizenship is designed as a series of short lessons, paced sequentially to structure a cumulative learning experience. In Artful Citizenship, the social sciences provide a strong context for teaching visual literacy and for achieving its goal of empowering students to become good citizens while increasing achievement in a variety of other disciplines.

Visual literacy instruction in the Artful Citizenship model utilizes Visual Thinking Strategies© (VTS), a learner-centered method that teaches students to examine and find meaning in visual art. VTS© was developed by researcher Abigail Housen with Philip Yenawine of Visual Understanding in Education (VUE). Housen's longitudinal research has measured increases in observation skills, evidential reasoning, speculative abilities, and problem-solving that were associated with gains in visual literacy. With the VTS©

method, teachers facilitate open-ended discussion of carefully selected art images. Students articulate their ideas about the images and respond to each other's comments in a process that stimulates growth in their viewing, communication, and thinking skills.

In Year One, the Artful Citizenship program was implemented with only third-grade students, beginning with one visual literacy lesson per week for six weeks using images from the VTS© curriculum. Following this visual literacy-only portion of the program, the following three to five weeks focused on the Artful Citizenship curriculum, which combined a visual literacy lesson using content-related images from The Wolfsonian collection, with a sequence of language arts and social studies activities, as well as lessons designed to build students' visual vocabulary of signs and symbols. These lessons were presented in three units; each consisting of 5-7 days of sequential activities organized around social studies thematic units. The last component, "Artistic Response," was designed to take place under the direction of the art teacher instead of the classroom teacher, and highlighted an important feature of the program: an emphasis on teamwork between classroom teachers and art instructors. Classroom teachers introduced new visual literacy and social studies concepts and language arts activities, while art teachers conducted hands-on art lessons with students in creative response to the classroom lessons. Artful Citizenship classroom and art teachers worked collaboratively to spur students to think creatively, take risks, develop critical skills, and voice informed opinions using higher order thinking skills, all outcomes associated with the Florida standardized assessments such as the Florida Comprehensive Assessment Test (FCAT) and Florida Writes.

The final portion of Artful Citizenship is a visit by teachers and students to The Wolfsonian. The purpose of the visit was to allow students to directly experience and reflect upon the images and artifacts on exhibit at the museum. Upon the completion of the Artful Citizenship program, students would demonstrate an enhanced understanding and appreciation of art and design as agents and reflections of social, political, and technological change.

In Year Two, implementation of Artful Citizenship began in September 2003 in the three target schools in grades 3 and 4 and ended in January 2004. The third- and fourth-grade social studies curriculum units were introduced in September with six weeks of visual literacy lessons, followed by a three–six week period of Artful Citizenship lesson delivered in both the regular classroom and art studio, and culminated in the final Art in Action project. Artistic response activities and museum visits also took place in the spring of 2004.

In Year Three, implementation of Artful Citizenship began in September 2004 in the three target schools in grades 3, 4, and 5 and ended in February 2005. The third, fourth and fifth-grade social studies curriculum units were introduced in September with six weeks of visual literacy lessons, followed by a three–six week period of Artful Citizenship lesson delivered in both the regular classroom and art studio, and culminated in the final Art in Action project. Artistic response activities and museum visits also took place in the spring of 2005.

Artful Citizenship contains an important professional development component that includes extensive teacher training in VTS© and the methodology of the visual literacy approach, in addition to a framework to present the three social studies curriculum units. A series of workshops and teacher debriefing sessions were held during the three years of the project. In the Artful Citizenship model, teachers – both classroom and art teachers – are active participants in the research and evaluation process. Gathering teacher feedback is part of a continuous internal assessment of curriculum materials and their effectiveness in meeting project objectives. A final roundtable discussion and debriefing session was held at The Wolfsonian to allow participating teachers – both classroom and art teachers – to share their experiences instituting the Artful Citizenship curriculum in their third, fourth and fifth-grade classrooms during the three years of the project.

Evaluation Design

Three-Year Summative Evaluation Component

Question 1: To what extent does participation in the Artful Citizenship program affect students' ability to interpret visual images in grades 3, 4 and 5?

Question 2: Do students who participate in the Artful Citizenship program have greater gains in psychosocial measures (e.g., self-efficacy, civic orientation) than children who do not participate in the program?

Question 3: What is the association between visual literacy and psychosocial measures?

Question 4: What is the association between visual literacy and student achievement in reading and mathematics?

As in the two previous years, three treatment schools were included in the project, and data were collected on all participants. A fourth school was included for statistical comparison. The schools were matched insofar as they all had a high percentage of students from low socioeconomic backgrounds who are at risk for academic failure.

The target schools included Miami Gardens (91.7 percent of students qualify for Free/Reduced Lunch), Phyllis Ruth Miller (79.2 percent of students qualify), and Fienberg-Fisher (87.2 percent of students qualify). The comparison school – Miami Shores Elementary – had 71.9 percent of students qualifying for Free/Reduced Lunch.

Since three schools received the *Artful Citizenship* program, and one school served as a comparison school – students there did not receive the program — it is crucial to determine that there were no significant differences between the two groups at the starting point of the study. We thus compared the variables of central importance to the study: the four psychosocial measures and visual literacy.

In three of the four psychosocial measures, treatment and comparison groups were virtually identical. In Art Self-Concept, Art Enjoyment, and School/Social Orientation, differences between treatment and comparison were fractional. Comparison and treatment students differed only on Academic Self-Concept, and by less than one-half point on a 15-point scale.

Group Statistics

	Treatment	N	Mean	Std. Deviation	Statistical Significance
Art Self-Concept	Comparison	47	11.57	1.60	.685
	Treatment	188	11.43	2.29	
Art Enjoyment	Comparison	47	10.02	1.55	.938
	Treatment	188	10.00	1.70	
Academic Self-Concept	Comparison	47	12.51	1.43	.038
	Treatment	188	13.04	1.58	
School/Social Orientation	Comparison	47	14.32	1.93	.705
	Treatment	187	14.45	2.25	

Comparison and treatment schools also differed in visual literacy, both on pretest and posttest. The comparison school students scored higher (on a 12-point scale) on the posttest. Although this initial difference in baseline-year score was statistically significant, it does not threaten the validity of the study, since change scores in visual literacy – not absolute levels – will be tracked over time.

Group Statistics

	Treatment/Comparison	N	Mean	Std. Deviation	Statistical Significance
Visual Literacy Score -- Posttests	Comparison	56	6.91	1.39	.004
	Treatment	181	6.06	2.03	

The program was administered to select third, fourth and fifth-grade classes in the three treatment schools. Pretests and posttests were administered and collected by The Wolfsonian education staff. All students in a given grade level were included in the study, unless parental consent was not granted. The evaluators were responsible for data coding and analysis.

New cohorts of program participants entered the program in each of the three years. In Year One, the first cohort – only third-grade students – was administered two visual literacy assessments and one psychosocial instrument. In Year Two, a new third-grade cohort began the program, while 68.7 percent of the first cohort of students moved to the fourth grade and received the new fourth-grade curriculum, thus receiving the program in Year One and Year Two. In Year Three, a new third-grade cohort entered the program, while most students in the other two cohorts moved up to fourth and fifth grade as expected, where they also continued to participate in the program.

Evaluation Question 1, program effect on visual literacy, was addressed using a pretest/ posttest design. All students in grades 3, 4 and 5 received two parallel visual images (prompts) selected from The Wolfsonian collection. A different set of prompts was used for each grade level. Students were asked to write a short written response to two questions drawn from the VTS© methodology while looking at the visual prompt to decode the visual language of the image. The evaluation team worked with The Wolfsonian to develop a holistic scoring rubric to measure the level of visual literacy and critical analysis demonstrated in the written responses. Three researchers trained in the basic concepts of visual literacy were taught how to use the rubric to score the written responses. The reliability of this scoring method was assessed using inter-rater reliability analysis, thus ensuring a high level of agreement between the raters. Validation comes in part from the involvement of experts in assessing the scoring rubric. Students also received another assessment instrument to assess psychosocial and character measures (Questions 2 and 3). Evaluation Question 4, effect of visual literacy on academic achievement in reading and mathematics, was addressed through an analysis of scores on norm-referenced and criterion-referenced tests and scores on visual literacy for the three-year cohort.

Student confidentiality was maintained in the following way. The Wolfsonian staff was asked to collect all pretest surveys from the students. The Wolfsonian marked each survey with a student-specific ID number prior to forwarding them to the evaluators for analysis. All confidential student data were stored in a secure location by The Wolfsonian.

In Year Three, the psychosocial pretest was administered in September and posttests were administered in February, 2005 and again in May 2005. The February test closely followed the end of the classroom curriculum. The May administration would provide data to assess the impact of the Art in Action activities on the art-related subscales. Again, posttests were administered and collected by The Wolfsonian, marked with an ID number, and forwarded to the evaluation team by June, 2005. For the visual literacy surveys, Curva & Associates was responsible for coding the posttests and for matching them to pretests. The visual literacy pretest was administered in September, but the posttest was administered only in February, 2005.

Three-Year Formative Evaluation Component

Similar to Year One and Year Two of the Artful Citizenship Project, formative assessment in Year Three was conducted in part through attendance and observations of teacher training workshops held at The Wolfsonian on the instructional resource package. (See Project Implementation Year-Three Report below.) The workshops were targeted to classroom and art teachers selected to implement the Artful Citizenship curriculum in the treatment schools. This report summarizes the processes and strategies utilized by The Wolfsonian and Miami-Dade County Public Schools in the development of the curriculum.

In Year Three, more qualitative data collection techniques were used to analyze the results of the curriculum implementation than in previous years. Site visits were conducted to the three elementary schools participating in the project in October, 2004 and again in January, 2005 to assess what makes for effective instruction and programming. A qualitative assessment tool was developed by the evaluation team for use in the site visits in grades 3, 4, and 5. The scope of these studies encompassed two-day visits to each school, during which interviews were conducted of teachers and administrators, and observations were made of the teachers in their classrooms. Researchers assessed student dynamics, project products, and school climate. The results were transcribed in search of common and contrasting themes. These converged on a "best practices" model for design and implementation. The evaluation team identified strategies for successful models (what do they have in common, how do they differ, etc.).

When innovative curricula are provided to classroom teachers, they often adapt the lessons to fit their own professional practice. Therefore, the actual implementation of any program may be influenced by a variety of school and/or classroom factors. In order to provide an accurate context for the analysis of the program outcomes, it was necessary to determine which components in the Artful Citizenship instructional packet were utilized in each classroom setting. This was documented through the use of periodic teacher reporting forms, teacher focus groups, site visits, debriefings, and review of completed student workbooks at the end of the school year conducted by The Wolfsonian education staff. Documenting both obstacles and unexpected positive events that influence program implementation provides additional information that may help explain program outcomes, as well as provide valuable information for redesigning the Artful Citizenship instructional resource package or teacher trainings.

Methodology

Development of Student Psychosocial Survey

The Artful Citizenship Psychosocial Survey was compiled using modified versions of existing commercially available instruments to assess the following areas of abilities: social orientation, school orientation, self-efficacy, artistic response, and civic responsibility. For each of these areas, an extensive review was conducted to determine a potential pool of existing instruments available commercially and referenced in the literature in the three areas. The 23-item survey included questions relating to art self-concept (Questions 1-4), art enjoyment (Questions 5-8), academic self-concept scales (Questions 9-13), and school and civic responsibility (Questions 14-18, 19-23).

The Wolfsonian administered a modified version of the psychosocial survey to all project sites, using a detailed script outlining the guidelines for administration of the survey. In Year One the survey was administered only once after the implementation of the curriculum. In Years Two and Three the survey was administered prior to the curriculum delivery in September, after most of the curriculum had been implemented in February, and again at the end of the school year to assess the impact of the Art in Action activities on the art-related subscales. The survey was available in all project sites in two versions: English and Spanish. (Copies of the surveys and guidelines for administration are included in Appendices A and B).

Research on Commercial Instruments

Extensive research was conducted of commercially available instruments to assess the following areas of abilities of elementary grade students: social orientation, school orientation, self-efficacy, artistic response, and civic responsibility. The search included the Mental Measurement Yearbooks and instrument publisher Web sites. From the review, and with approval of project staff, the following instruments were selected for incorporation in the development of the Artful Citizenship Psychosocial Survey:

- Civic Responsibility Survey for K-12 Students Engaged in Service-Learning. Revised 1998. Developed by Andrew Furco, Parisa Muller, and Mary Sue Ammon. Service-Learning Research and Development Center, University of California, Berkeley.

- Art Self-Concept Inventory. 1979. Developed by Alison King. Published by the Educational Testing Service, Princeton, New Jersey.

- The Self-Concept of Ability Scale: Elementary Form. 1967. Developed by Wilbur B. Brookover, Edsel Erikson, Lee M. Joiner. Published by the

Educational Testing Service, Princeton, New Jersey.

- Positive Action, (Grades K-3), Key to Questions for Self-Concept, Form A. 1998. Developed by Carol Gerber Allred. Positive Action Company, Twin Falls, Idaho.

A description of the instrument, scoring and interpretation, and survey reliability and validity report follows. Modified versions of each of the instruments were used in the development of the Artful Citizenship Psychosocial Survey (see Appendix B versions in English and Spanish). The items were read orally to students as they read the text individually during test administration. (See Appendix C.) The modified version used for Artful Citizenship simplified the selected test items, as well as the response categories for administration to third-grade students.

Artistic Response

The Art Self-Concept Inventory (ASCI), developed by Alison King (1979), was modified and used to assess artistic response (test items Questions 1-8). The instrument is a 49-item, 4-point rating scale developed to measure students' art self-concept defined as "students' perceptions of themselves as makers of art, as judges of art, and as enjoyers of art." There are 3 subscales to the instrument: art making, art judgment, and art enjoyment. The author intended the instrument to be an effective tool for assessing self-concept outcomes of school, museum, and community art programs.

Reliability for each subtest was established using Carroll's Psychometric Evaluation Package. Concurrent validity of the inventory was statistically estimated by factor analysis. The instrument appears to possess both content and construct validity in that the items in the scale sample a range of art experiences and the instrument shows uni-dimensionality – all items measure some aspect of art self-concept. Cronbach's Alpha coefficients of internal consistency (Cronbach, 1951) ranged from .96 to .97 for the subtests and total test on pilot study. The other estimate of reliability, Guttman's split-half (Carroll, 1975), ranged from .88 to .97 (The Art Self-Concept Inventory: Development and Validation of a Scale to Measure Self-Concept in Art, 1979).

Self-Concept

Another instrument was used to assess academic self-concept. For Questions 9-13, The Self-Concept of Ability Scale: Elementary Form, developed by Brookover, et. al. (1967) was used in developing the modified version. The instrument was designed to measure the relationship between self-definitions of academic ability and actual school achievement of students in grades 4 through 8. The instrument consists of eight items rated on a three-point Likert-type scale. It is a self-report instrument. Reliability and validity studies have been conducted on the instrument (Brookover, et. al., 1967; Brookover, et. al., 1973; Brookover, Wilbur and Jeffrey Schneider, 1975; Brookover, et. al., 1979).

School and Civic Responsibility

The instrument Civic Responsibility Survey for K-12 Students Engaged in Service-Learning developed by Furco, Muller, & Ammon (revised 1998) was used to assess school orientation (Questions 14-18) and civic responsibility (Questions 19-23). The packages of materials are available in three levels (pre- and post-tests) and two versions (English and Spanish). It also includes all survey forms, instructions for survey administration, and a teacher/test administrator feedback form. Each level was designed for a different age group. Level 1 was developed for elementary grade students and used in the development of the Artful Citizenship instrument. Level 2 is designed for middle school students, while Level 3 is for high school students.

The three levels of the survey were employed in a large study of K-12 service-learning in California in 1998-99. For the English version of the survey, reliability estimates for all 3 levels ranged from .76 to .93. Not enough data had been collected at the time to assess the reliability of the Spanish versions of the survey.

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Assessing Visual Literacy

The Visual Literacy Assessment Survey for Artful Citizenship was conducted to determine the extent that participation in the project affected students' abilities to interpret visual images and to think critically, especially about social studies issues. As part of this assessment, students were asked to respond in writing to a work of art from The Wolfsonian collection. All participants were assessed twice each year: prior to the program and at the completion of the program.

Each student was provided two components to the survey: one color image, a reproduction of a painting, and one Artful Citizenship Visual Literacy Assessment Survey. The Visual Literacy Assessment Survey contained two open-ended questions. Students were asked:

1. What is going on in this picture? What do you see that makes you say that?

2. What more can you find?

The questions used a student-centered technique, following the approach of the Visual Thinking Strategies© (VTS) training. A detailed guideline for administration was developed for the Visual Literacy Assessment and provided to staff of The Wolfsonian. The packages included the guidelines for administration of the Visual Literacy survey, images of works from the collection, and the survey. The Wolfsonian distributed the identical package in to all project sites for the posttest survey. (Copies of the survey, guidelines for administration, scoring sheet, and the visual prompts are included in Appendices C and D.)

The pre and post assessments were conducted using parallel visual prompts. Although the artworks selected as prompts were not identical, they were selected to be parallel. The prompts were different at each grade level.

For example, at the third-grade level, one image depicted a barn fire and the other seemed to be farm workers laboring in a hay field. Both featured male figures hard at work; both represented a family group gathered together for a common purpose; both suggested potential social, political, or personal issues.

At the fourth-grade level, one image depicted a crowded bus or subway and the other represented a solitary figure and three twisted, leafless trees on a barren foreground contrasted against a glowing city skyline. Again, both images suggest social issues, related to urban life, and suggested potential race, class, or pollution issues.

At the fifth-grade level, one image depicted a crowded courtroom and the fight for the abolishment of slavery, and the other represented two working class women talking from the windows of a high-rise building. Although less obvious in their similarities, both images prompted the readers to consider issues of race, class, poverty, and social change.

All prompted students to respond using the same identical questions as described above. In other words, although the works portrayed different experiences, the visual prompts were very similar, and the content of the writing task was identical.

To ensure reliability, decreasing the likelihood that scores might be affected by a weak visual prompt, all students responded to both images within their grade level. Half the students in each class received one or the other image for the pretest, and then the images were reversed for the posttest. All third-graders, consequently, responded to both third-grade prompts, all fourth-graders responded to both fourth-grade prompts, and all fifth-graders responded to both fifth-grade prompts.

Visual literacy assessment papers, pre and post, were collected from the school sites and consultants were hired to conduct the scoring.

Design of the Visual Literacy Instrument

The assessment of any student writing requires a definition of terms. Due to external variables inherent in this particular set of writing samples, it seems especially important to clarify the assessment procedures. Drawing heavily on the work of Myers (1980) as well as the National Assessment of Education Progress methods, the following section provides an account of the history of the rubric design, a rationale for its use, explanation of the Artful Citizenship rubric, description of the performance domains, and procedures utilized in scoring student responses.

History and Rationale of the Rubric

The first version of the Artful Citizenship rubric was crafted as part of an earlier visual literacy project, *Artful Truth.* In 1999-2000, the assessment team met to prepare the rubric, or scoring guide. The purpose of their day-long meeting was to align the rubric with the scoring criteria and prepare a smaller team of experienced scorers who would subsequently rate the pool of papers. Toward that end, the agenda for the team meeting was to review the goals and objectives of the project, to review the assessment itself, to determine competency in student responses, and to determine procedures for scoring the mass of papers.

Discussion of the project, analysis of the open-response test, and examination of sample papers resulted in an important realization. Quickly, the team agreed that specific features of the written responses alone could not accurately reflect student thinking. In other words, the whole of any student response was greater than the sum of its parts. Therefore, a holistic scoring procedure was chosen rather than a number count or analytic trait-scoring guide. Holistic scoring is the method most often used in large-scale assessments because it allows large numbers of papers to be scored relatively quickly.

In terms of arts education, Wilson (1996) argues against fragmented, de-contextualized assessments and instead favors a holistic approach. Techniques for scoring student writing using a holistic performance-based rubric have been found reliable and valid (Novak, 1996).

According to Elliott (1995), this kind of assessment is like a criterion-reference test because the performance is scored by an experienced rater who compares the work to criteria established specifically for the performance event and then awards the student a single number in correspondence to the description that best characterizes the performance. In other words, students are not compared to other students but to clear, established criteria.

The Artful Citizenship Rubric

For purposes of the Artful Citizenship assessment, in order to look more closely at visual literacy as well as critical thinking, it was necessary to make some revisions to the *earlier* rubric designed for The Wolfsonian's Artful Truth and Page at a Time projects, a rubric that had been piloted in two previous projects with great success. Although the rubric had proven effective in scoring student writing for features of visual literacy as applied to advertisements, it needed to be expanded for this project. (A copy of the Scoring Rubric is found in Appendix H.)

Although the student papers were judged against the established criteria, the rubric emerged from the range of papers. That is to say, the best papers in the overall batch received the highest score and the least developed papers received the lowest score. This process of rank-ordering is considered descriptive rather than prescriptive. The scores reflect the best of what was found to be true in this set of papers.

Six scoring categories were developed. The even number of categories ensured that readers would not be tempted to use a middle number as a compromise score (for example, on a five-point scale, 'three' would be the compromise choice). The six scoring categories seemed essential for determining growth over time, from the pretest to the posttest, as students would be compared ultimately to their own earlier work. In other words, students who scored low initially (a 'one', 'two', or even 'three' rating) should show improvement even though they still may not achieve high levels of competency (a 'one' might become a 'two').

During a series of team meetings, several held in Miami at The Wolfsonian museum, and as a result of rich discussion, notes were made on each scoring category and a list of criteria prepared. Six scoring categories were analyzed for features that defined each category, and prototype papers were selected from the samples to be used as benchmarks to anchor the reading. The anchor papers representative of each scoring category were read and discussed and the list of features was revised accordingly. Later, during the actual scoring sessions, further revisions were made to the rubric (Broad, 2003).

A note on scoring third-grade writing

Using writing to evidence the thinking of young children has the potential to be problematic. Because writing is a developmental process, it is not uncommon to have a wide range of ability in any third-grade classroom and subsequently in any sample of third-grade writings (Halliday, 1980). Physical demands can be burdensome, and beginning writers are usually unable to write quickly or as legibly as they do later on. They are not likely to spell as many words using conventional spelling, nor do they punctuate or use other conventions well (Bissex, 1980; Chomsky, 1971). Often, third-graders are afraid to take risks as they have learned to fear error and are anxious for precision and correctness (Calkins, 1986). And not to overly simply or generalize the developmental nature of writing, but of special concern for the purposes of the Artful Citizenship assessment was one final trend common in third-grade compositions: the yet-to-be-made-visible ability to express complex thoughts (Tompkins, 1990).

The Artful Citizenship assessment team was determined to read, understand, and score every single paper. It proved a challenging task, but results demonstrated the task was doable. At heart was a philosophical truth taken from how children learn oral language: At heart is a philosophical truth taken from how children learn oral language: More knowledgeable adults receive communications from young language users, not from a critical stance, but in an earnest effort to validate and reward meaning making. For example, when a small baby utters a sound, "Wa wa," the parents reply, "Yes, water! Very good!"

As part of the Artful Citizenship evaluation process, the scoring team agreed to see through any errors to what the children wanted to say. Although it sometimes took longer to read and score the papers, in the end, every word of every paper was read, received, and rewarded using the six-point rubric.

Performance Domains

To assess levels of visual literacy *and critical thinking*, four performance domains were defined: description, animation, analysis, and interpretation. These cognitive skills grow increasingly difficult as the viewer moves from literally naming and describing to critically analyzing and interpreting (Bloom, 1956; Fleming, 1982), as symbolized by the shading of the rubric domains. (See Scoring Rubric in Appendix H.)

Description is at the lowest level of critical thinking and visual literacy. It includes naming, listing, and identifying. In terms of the Artful Citizenship rubric, a limited, developing or literal response does little more than describe particular elements. The higher scores, a "3" for example, demonstrate a response that begins to move toward analysis. For purposes of the Artful Citizenship assessment, a score of three demonstrates that students make connections, apply what they know about the elements, and relate them to each other.

The highest level of respondents, those deemed proficient, accomplished, or sophisticated in their responses, include a level of inference relating visual elements to other, larger issues. Students at this level demonstrate their ability to interpret the work in terms of social, personal, or political issues and they may place their thinking in a larger cultural or historical context. They may evaluate the quality of the work, the success of the artist's intention, and perhaps even offer a solution to the issues they identify.

A Description of the Scoring Categories and Sample Anchor Papers

Third-Grade Prompt A

Possible Scores:

Six: A sophisticated response. Includes substantial description of visual elements. Describes social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating elements in cultural or historical contexts. Connects visual elements to artist's intent. May connect content to cultural values. May design solutions. Evaluates success of the work.

I think the thing that's going on is that people are working hard and these people are from long time ago. For this type of work today they use tractors and other modern vehicles not people to carry those sacks. I think they're from long ago too because today guards don't wear those clothes. I think the artist is trying to explain that the people from long ago had a very difficult time.

Five: An accomplished response. Describes visual elements in detail. May identify social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating some elements. Connects some visual elements to artist's intent. May evaluate the art/artifact. Relates tangential information to the task.

Men are working and the woman is giving food to the baby. It makes me say that because two men are carrying this bag and the woman is touching the baby's chin. I think the people are in Mexico and they are working for the homeless people. I think that because it is sunny and there's like a line in front of the woman.

Four: A proficient response. Describes identified visual elements. May name a conflict or problem. Attributes actions to characters. Relates some elements of the image to each other. May discuss context. May connect visual elements to artist's intent. May be incorrect in reading and may include tangential information or opinions.

I think they are working and moving the hay. One man is drinking water. A lady is with some children. Some men have sacks on their backs. There is a big house. There are geese and they're working in a barn. A child is holding the man's leg.

There's a thing that has a string to the cart. …People are working hard with hay and sacks and … they are plowing the fields.

Three: A literal response. Describes particular elements. May label visual traits, such as shape, symbols, or structural details. Attributes actions to characters. Relates some elements of the image to each other. Often answers questions. Provides little or no evidence. May be incorrect reading.

I think they are in the desert working. What makes me say that is because it is sunny and they're working. They're working in the desert and it is hot and sweating. I see ducks.

Two: A developing response. Two or more elements are identified. May randomly list elements. Attributes actions to characters. Provides little or no evidence of analysis. Provides little or no evidence of interpretation. May be an incorrect reading. May give opinion, but lacks support.

A guy is drinking water because he is thirsty. Men are taking sacks of cement. A pitchfork is on top of the rack.

One: A limited response. Blank or illegible. Lacks detail. May be off topic. Description may be inaccurate. Provides little or no evidence of animation, analysis, or interpretation.

I see a man drinking out of a cup….

Third-Grade Prompt B

Possible Scores:

Six: A sophisticated response. Includes substantial description of visual elements. Describes social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating elements in cultural or historical contexts. Connects visual elements to artist's intent. May connect content to cultural values. May design solutions. Evaluates success of the work.

The church is on fire and the people with horses are running for the water to put on the church. I see fire and the birds are flying away. The people and the horses are running too. The people are screaming, "Help, help." There's a truck beside the fence and there are men. A woman is looking at the church that is on fire, and the little child is putting her hands up to her mom. A man is putting the little cows where they need to be, and the other man is looking at the church. He is going to help all the other people.

Five: An accomplished response. Describes visual elements in detail. May identify social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating some elements. Connects some visual elements to artist's intent. May evaluate the art/artifact. Relates tangential information to the task.

I see smoke in the house and fire. The horses are running crazy and the mom is protecting the child from the fire. The men are trying to get the animals safe from the fire, and I see trees, a car, house, garden. I see yellow flowers, a white gate, and ground. The people are scared.

Four: A proficient response. Describes identified visual elements. May name a conflict or problem. Attributes actions to characters. Relates some elements of the image to each other. May discuss context. May connect visual elements to artist's intent. May be incorrect in reading and may include tangential information or opinions.

A house is on fire. People are running around. Some people are helping put out the fire. People are helping take out the horses that are in the house and the cows. I see smoke.

Three: A literal response. Describes particular elements. May label visual traits, such as shape, symbols, or structural details. Attributes actions to characters. Relates some elements of the image to each other. Often answers questions. Provides little or no evidence. May be incorrect reading.

I see a fire in a house and I see a mom and her little girl. I see a boy protecting the mom and the little girl.

Two: A developing response. Two or more elements are identified. May randomly list elements. Attributes actions to characters. Provides little or no evidence of analysis. Provides little or no evidence of interpretation. May be an incorrect reading. May give opinion, but lacks support.

There is people, animals, a car, a tree, a home on fire. A house. A mom and a boy. A cow. Flowers.

One: A limited response. Blank or illegible. Lacks detail. May be off topic. Description may be inaccurate. Provides little or no evidence of animation, analysis, or interpretation.

I see a car. I see people running.

Fourth-Grade Prompt A

Possible Scores:

Six: A sophisticated response. Includes substantial description of visual elements. Describes social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating elements in cultural or historical contexts. Connects visual elements to artist's intent. May connect content to cultural values. May design solutions. Evaluates success of the work.

What's going on in the picture is that this man had lived on an island until a company destroyed it and built a city off the coast of the island. Three of his best friends died and the trees represent their graves because around the trees there are small hills. The city is new and everything in the city looks very white. I also see a sort of raccoon shape on a hill and it looks like the man is in his 50's. He has a sad expression. The company that built the city might have been called Mega Corp because everything looks so new in the city.

Five: An accomplished response. Describes visual elements in detail. May identify social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating some elements. Connects some visual elements to artist's intent. May evaluate the art/artifact. Relates tangential information to the task.

I see a man on an island in New York that is lonely and sad about the island because it has three, old, dead trees and grass. I say that because that's how it looks in the picture. I can find an ocean, sand, and tall buildings. He is wearing a gray hat.

Four: A proficient response. Describes identified visual elements. May name a conflict or problem. Attributes actions to characters. Relates some elements of the image to each other. May discuss context. May connect visual elements to artist's intent. May be incorrect in reading and may include tangential information or opinions.

I see a man standing with his hat on and he is putting his hands in his pockets. He's on an island. He looks sad that his is stuck on an island. Behind the man is the city with buildings. There are small hills on the ground. The trees are old, no leaves just branches.

Three: A literal response. Describes particular elements. May label visual traits, such as shape, symbols, or structural details. Attributes actions to characters. Relates some elements of the image to each other. Often answers questions. Provides little or no evidence. May be incorrect reading.

A man is watching the view from an island. I see water and a city far away. An ocean, broken trees, and a city.

Two: A developing response. Two or more elements are identified. May randomly list elements. Attributes actions to characters. Provides little or no evidence of analysis. Provides little or no evidence of interpretation. May be an incorrect reading. May give opinion, but lacks support.

A Sunrise. Ocean. Bird. A man is standing. A hill with trees.

One: A limited response. Blank or illegible. Lacks detail. May be off topic. Description may be inaccurate. Provides little or no evidence of animation, analysis, or interpretation.

I see a man look. The city. Water.

Fourth-Grade Prompt B

Possible Scores:

Six: A sophisticated response. Includes substantial description of visual elements. Describes social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating elements in cultural or historical contexts. Connects visual elements to artist's intent. May connect content to cultural values. May design solutions. Evaluates success of the work.

I see people going on a subway because the adults have to go to their jobs. I also see a child and her mother going to church because the child has a book in her hand. I also see some of the men reading a newspaper about their country or state. And last I see worried faces on some of the women or men because something bad is happening that is read in the newspaper. Another thing I see is that out of the window it looks like it is raining and there is a flood which is why some of the men and women are worried. But some other people think it will be over soon. And last I see an old man talking to the woman's daughter saying that nothing bad will happen.

Five: An accomplished response. Describes visual elements in detail. May identify social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating some elements. Connects some visual elements to artist's intent. May evaluate the art/artifact. Relates tangential information to the task.

I see people reading and looking at one another and a little girl with a box tied together. I see signs on the subway and a man with a light colored hat looking at the newspaper. And a man looking out the window. I see a woman looking at the man, and the old woman looking at the little girl's mom and the man by the Black on the right looking at the window. I can see the fan. I can see the little girl is sad and the

mom looks sad too. And the man by the other man seated on the left is reading the funny comics.

Four: A proficient response. Describes identified visual elements. May name a conflict or problem. Attributes actions to characters. Relates some elements of the image to each other. May discuss context. May connect visual elements to artist's intent. May be incorrect in reading and may include tangential information or opinions.

What I see in this picture is people on a train. And most of them are reading a newspaper. I say that because I can see them doing something in this picture. Everybody is wearing a hat and some are not. Some are just sitting down reading.

Three: A literal response. Describes particular elements. May label visual traits, such as shape, symbols, or structural details. Attributes actions to characters. Relates some elements of the image to each other. Often answers questions. Provides little or no evidence. May be incorrect reading.

I see lots of people. It looks like their on a train. I see a fan. I see little posters by the side. I see the people holding ropes.

Two: A developing response. Two or more elements are identified. May randomly list elements. Attributes actions to characters. Provides little or no evidence of analysis. Provides little or no evidence of interpretation. May be an incorrect reading. May give opinion, but lacks support.

Hats. Signs. People reading newspapers. A girl with a hat on.

One: A limited response. Blank or illegible. Lacks detail. May be off topic. Description may be inaccurate. Provides little or no evidence of animation, analysis, or interpretation.

I see people on a subway going somewhere. Nothing else.

Fifth-Grade Prompt A

Possible Scores:

Six: A sophisticated response. Includes substantial description of visual elements. Describes social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating elements in cultural or historical contexts. Connects visual elements to artist's intent. May connect content to cultural values. May design solutions. Evaluates success of the work.

In this picture I see two women debating something. They are leaning out their windows and talking. The woman on the left-hand side of the picture is listening while the woman on the right side is talking and using gestures to express what she is saying. Above the woman on the right there seems to be a crow sleeping. I can see a bed in the room behind the woman on the left. Both the women are leaning on rags. There seem to be some kind of wires hanging down from the ledge about the heads of the women. The ledges are carefully etched in with designs and seem to be built out of stone. The rest of the building is built out of bricks. This may be a picture of everyday life in a small city somewhere.

Five: An accomplished response. Describes visual elements in detail. May identify social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating some elements. Connects some visual elements to artist's intent. May evaluate the art/artifact. Relates tangential information to the task.

There are two ladies talking with each other. They look like they're poor for the way they're dressed. There is a bed behind one of the girls. I think it's the girl's bed. These two girls look like they are trying to solve a problem. There is a rope coming down from the roof. I think the building the girls are in is where they live. It looks like the two girls are friends.

Four: A proficient response. Describes identified visual elements. May name a conflict or problem. Attributes actions to characters. Relates some elements of the image to each other. May discuss context. May connect visual elements to artist's intent. May be incorrect in reading and may include tangential information or opinions.

I see two girls that look bored and upset. What makes me say that is because I think an artist usually uses black to show they're bored or something like that. I can also find that they are in a brick motel. I think I see a bird on the top of the page.

Three: A literal response. Describes particular elements. May label visual traits, such as shape, symbols, or structural details. Attributes actions to characters. Relates some elements of the image to each other. Often answers questions. Provides little or no evidence. May be incorrect reading.

There are two ladies that look like they are talking out the window. I see them with their heads out the window. A wire is hanging down from the top of the building, and I see a bed and some curtains..

Two: A developing response. Two or more elements are identified. May randomly list elements. Attributes actions to characters. Provides little or no evidence of analysis. Provides little or no evidence of interpretation. May be an incorrect reading. May give opinion, but lacks support.

Ladies hanging out the window talking. The ladies. A building with things around it

One: A limited response. Blank or illegible. Lacks detail. May be off topic. Description may be inaccurate. Provides little or no evidence of animation, analysis, or interpretation.

Don't do that. Great kids get A's.

Fifth-Grade Prompt B

Possible Scores:

Six: A sophisticated response. Includes substantial description of visual elements. Describes social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating elements in cultural or historical contexts. Connects visual elements to artist's intent. May connect content to cultural values. May design solutions. Evaluates success of the work.

I think that the man with the bible, gun, and sword was a great hero, because almost everyone around him is bowing to him. I also think he accomplished killing someone because of the blood at the tip of the sword. Or he was driven out of the country because he freed the slaves. The man right next to him has tears in his eyes, and everyone is looking ashamed that he is leaving, except the judges. The color of the background part of the picture is dull. It looks like it is during the time of slavery for African-Americans. I think so because some people are wearing broken chains on their hands. I also see a Ku Klux Klan hat at the right corner of the picture. It's like a meeting to decide if the man should leave or not. The judges don't look very excited about him.

Five: An accomplished response. Describes visual elements in detail. May identify social, personal, or political conflicts. Attributes actions to characters. Demonstrates understanding of the whole by relating some elements. Connects some visual elements to artist's intent. May evaluate the art/artifact. Relates tangential information to the task.

I see a man with a sword and I think that he is the leader because there are other people on the ground with chains. Those people are looking up at him and they look poor because of their clothing. I also think that the man with the sword is the main person in the picture because his picture is the biggest. I also think the man with the sword is killing the other people, or those people might be slaves for him. On the top of the picture I see some men who might be working because they have a paper in front of them and I think they have some kind of machine.

Four: A proficient response. Describes identified visual elements. May name a conflict or problem. Attributes actions to characters. Relates some elements of the image to each other. May discuss context. May connect visual elements to artist's intent. May be incorrect in reading and may include tangential information or opinions.

In this picture the man that is standing up with a sword just freed some people from slavery. I think that because the man that has on the chains looks happy that he got saved. I also see a crowd around the man with the sword. They all look sad. There is a guy in the background dancing because he got freed from slavery.

Three: A literal response. Describes particular elements. May label visual traits, such as shape, symbols, or structural details. Attributes actions to characters. Relates some elements of the image to each other. Often answers questions. Provides little or no evidence. May be incorrect reading.

I think the people in this picture are fighting. I say this because I see a man with a sword and other people with tools. I can find a man in chains and I can see a man carrying a hay stack and a man with a rake.

Two: A developing response. Two or more elements are identified. May randomly list elements. Attributes actions to characters. Provides little or no evidence of analysis. Provides little or no evidence of interpretation. May be an incorrect reading. May give opinion, but lacks support.

A fight because a guy is holding a sword in his hand. A guy is holding a chain in his hand. The guy with the sword was tracking down food.

One: A limited response. Blank or illegible. Lacks detail. May be off topic. Description may be inaccurate. Provides little or no evidence of animation, analysis, or interpretation.

I see a man.

Scoring the Papers

During the 2005 scoring sessions, five consultants familiar with holistic writing assessment were hired to conduct the assessment. Their familiarity with the process resulted in high levels of rater agreement.

In a face-to-face session, the raters met, reviewed the rubric and the prompts, acquainting themselves with both. They discussed the six visual works of art chosen for the assessment (two per grade level) and were in agreement on what would constitute quality in each score-point. A set of unidentified papers was placed in front of each reader, and

score sheets were distributed. (See Appendix E.) Raters also had copies of the rubric and sample anchor papers to guide them if needed.

Each rater read a batch of selected papers, pulled from the pile for anchoring purposes. Then they scored, traded batches, re-scored, compared scores, and discussed. The scorers had no discrepant readings.

Each paper was read and scored twice, each time by a different reader. Each reader scored the papers independently, folding their tallies back so the second reader had no knowledge of the other's judgment. Once two people had scored a paper, scores were tallied and the composite score was recorded on the score sheet. If the readers did not agree on the score, in other words if the difference in scores was more than one point, then the third reader read the paper and changed one of the original scores, changing the total of the paper.

The parallel prompts made it impossible for the raters to know whether a response was a pretest or posttest paper at either grade level. The fact that raters achieved nearly perfect agreement in scoring reliability was due to the clarity of the rubric, the use of good anchor or benchmark papers, their understandings of holistic assessment procedures, and their expertise with writing and its assessment.

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Visual Literacy and Psychosocial Surveys
Three-Year Data

Description of the Sample

In Year One, psychosocial surveys and visual literacy written responses were returned from third-grade students in four schools – three treatment schools and one comparison school. Psychosocial surveys were administered once after the program was implemented. Visual literacy tests were administered twice. The Year One sample consisted of only third-grade students.

In Year Two, a new cohort of third-graders received the program in the treatment schools. Most of the students in the first cohort, who were now in fourth grade, received the new fourth grade curriculum. Psychosocial surveys were administered to both cohorts three times during the school year (in September 2003, February 2004, and May 2004). Visual literacy tests were administered twice (in September 2003 and February 2004).

In Year Three, a new third grade cohort was again added and the first two cohorts moved up to the fourth and fifth. Psychosocial surveys were again administered three times during the school year (in September 2004, February 2005, and May 2005). Visual literacy tests were administered twice (in September 2004 and February 2005).

Total usable psychosocial surveys (in both English and Spanish) were as follows:

School	**Year 1**	**Year 2**			**Year 3**		
	May 2003	Sept 2003	Feb 2004	May 2004	Sept 2004	Feb 2005	May 2005
Fienberg Fisher	68	134	150	114	113	101	84
Miami Gardens	66	107	113	93	88	84	75
Miami Shores	47	236	240	216	141	170	148
Phyllis Miller	54	110	117	100	79	67	62
Total	235	587	620	523	421	422	369

Total visual literacy tests scored (in both English and Spanish) were as follows:

School	Year 1		Year 2		Year 3	
	May 2003	Sept 2003	Feb 2004	May 2004	Sept 2004	Feb 2005
Fienberg Fisher	66	66	149	134	50	111
Miami Gardens	73	65	111	103	41	92
Miami Shores	54	54	237	241	154	189
Phyllis Miller	56	51	109	112	47	72
Total	249	236	606	590	292	464

Calculation of Psychosocial Scales

The five psychosocial scales adapted from the research literature were calculated as follows: (See Research on Commercial Instruments above.)

On some of the psychosocial scales, items were worded in such a way that some were 'positive' items – those where agreement indicated a positive attribute – and some were 'negative' items – those where disagreement indicated a positive attribute. These items needed to be recoded so that they could be summed to produce a score for each of the scales. Scale items and their positive and negative valences were as follows:

Psychosocial Scale	Item	'Positive' Item	'Negative' Item	Maximum Score/Item
Art Self-Concept	Q1	√		4
(Maximum = 16)	Q2	√		4
	Q3	√		4
	Q4	√		4
Art Enjoyment	Q5	√		4
(Maximum = 16)	Q6	√		4
	Q7	√		4
	Q8	√		4
Academic Self-Concept	Q9	√		3
(Maximum = 15)	Q10	√		3
	Q11	√		3
	Q12	√		3
	Q13	√		3
School Orientation	Q14	√		3
(Maximum = 15)	Q15		√	3
	Q16	√		3
	Q17	√		3
	Q18		√	3
Civic Orientation	Q19	√		3
(Maximum = 15)	Q20		√	3
	Q21	√		3
	Q22		√	3
	Q23	√		3

Treatment of Missing Data

It is especially important in longitudinal panel studies to maximize the number of baseline responses. Attrition is an unavoidable problem in longitudinal studies, so using all possible surveys in each year is crucial. In order to conserve as many cases as possible, surveys with missing data were treated in the following way:

For respondents missing one or two items in a given psychosocial scale, scores were computed based on the responses they did provide by averaging the items they completed and projecting the score on the full scale reflecting that average score.

The arithmetic transformations were as follows (fractional scores were rounded):

Psychosocial Scale	Items In Scale	Formula for Calculating Scale Score	
		Missing One Item	Missing Two Items
Art Self-Concept	4	$(I_1 + I_2 + I_3) * (4/3)$	$I_1 + I_2 * (4/2)$
Art Enjoyment	4	$(I_1 + I_2 + I_3) * (4/3)$	$I_1 + I_2 * (4/2)$
Academic Self-Concept	5	$(I_1 + I_2 + I_3 + I_4) * (5/4)$	$I_1 + I_2 + I_3 * (5/3)$
School Orientation	5	$(I_1 + I_2 + I_3 + I_4) * (5/4)$	$I_1 + I_2 + I_3 * (5/3)$
Civic Orientation	5	$(I_1 + I_2 + I_3 + I_4) * (5/4)$	$I_1 + I_2 + I_3 * (5/3)$

Where Ij = Items completed in the scale.

Reliability of Psychosocial Scales

In order to estimate the reliability of the five psychosocial scales, we used Cronbach's Alpha – a test of the internal reliability of a scale. Reliability estimates were conducted for each administration of the survey.

In Year One, the reliabilities of the five psychosocial scales were modest to low. Of the two art-related scales, Art Self-Concept had a low reliability of .26; Art Enjoyment was considerably more reliable from an internal consistency point of view (alpha = .50). The former could be improved by deleting Question 2 from the subscale: reliability would increase to nearly .40. Academic Self-Concept also had a reliability that was modest, approaching .50.

The psychosocial scales measuring civic and school orientation had very low reliabilities (alpha = .29 and .05. respectively). These coefficients fell below commonly accepted standards. In order to address this problem, we combined the two scales, as both were related to external orientations (school and civic). The reliability of the combined scale was much higher. Although the reliability for the new combined 10-item scale was only .27, deleting 4 of the 10 items increased the alpha coefficient to .50. We thus computed an alternate scale: School/Civic Orientation comprised of items 14, 16, 17, 19, 21, and 23.

In Year Two, reliabilities improved for all four subscales over all three test administrations. Reliabilities for Art Self-Concept ranged between .38 and .44, significantly higher than in Year One. Reliabilities for Art Enjoyment also improved, exceeding .60 on the last test administration in Year Two, compared to .50 previously. The reliability coefficient for Academic Self-Concept also increased slightly, exceeding .50. Finally, reliability of the merged subscale, School/Civic Orientation, also improved, surpassing .50. In Year Three, reliability coefficients were substantially unchanged.

These reliability coefficients turned out to be considerably lower than represented in the research literature. Reliability levels under .80 are generally considered suspect. The best that can be said of the psychosocial measures is that they had low, but consistent reliability.

Table 1
Reliability Coefficients for Psychosocial Subscales
(Cronbach's Alpha)

	Year 1	Year 2			Year 3		
	May 03	Sep 03	Feb 04	May 04	Sep 04	Feb 05	May 05
Art Self-Concept	.2590	.4176	.3835	.4442	.5139	.5130	.4588
Art Enjoyment	.4959	.5437	.5271	.6110	.6201	.6215	.6610
Academic Self-Concept	.4511	.5459	.5097	.5347	.5426	.5423	.5285
School Orientation	.0559	-	-	-			
Civic Orientation	.2864	-	-	-			
School/Civic Orientation	.4946	.5649	.5015	.5309	.5464	.5474	.4710
n (range)	223-233	525-557	489-532	486-506	786-673	818-676	805-753

Construct Validity of Psychosocial Scales

When scales are successfully measuring the constructs they are designed to measure, then certain relationships among these scales should be predictable. In particular, one would hypothesize positive correlations between Art Self-Efficacy and Art Enjoyment; and between Academic Self-Efficacy and School/Civic Orientation.

Over the three-year project period, there was a consistent and moderately strong relationship between the two art-oriented measures. Art Self-Efficacy and Art Enjoyment were correlated between .40 and .50. Students with high Art Self-Efficacy are more likely to experience more Art Enjoyment; students with lower Art Self-Efficacy have lower Art Enjoyment scores. (See Table 2 below.)

Correlations between Academic Self-Efficacy and School/Civic Orientation were considerably smaller. Pearson correlation coefficients estimates were consistently between .20 and .30 – small effect sizes considering the anticipated association between the two. In one observation, the correlation was virtually zero (See Table 2, Sept 2003).

In addition to low reliabilities and low to moderate intercorrelations, another problem with the psychosocial scales is that they are not associated with other constructs for which we expected to see strong relationships. For example, the change in academic self-concept is uncorrelated with the growth in academic achievement, both in reading and mathematics. Similarly, changes in the two art-related scales were unrelated to

participation in the Artful Citizenship program, despite the long exposure to the program. Because, as we shall demonstrate below, Visual Literacy was associated with program participation, the validity of the art-oriented scales is also suspect.

Table 2
Correlations between Four Psychosocial Variables: Observations over a Three-Year Period

Correlations Between Psychosocial Variables: Year 1: May 2003

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.469**	.257**	.495**
	Sig. (2-tailed)	.	.000	.000	.000
	N	235	235	235	234
Art Enjoyment	Pearson Correlation	.469**	1	.226**	.369**
	Sig. (2-tailed)	.000	.	.000	.000
	N	235	235	235	234
Academic Self-Concept	Pearson Correlation	.257**	.226**	1	.253**
	Sig. (2-tailed)	.000	.000	.	.000
	N	235	235	235	234
School/Social Orientation	Pearson Correlation	.495**	.369**	.253**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	234	234	234	234

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations Between Psychosocial Variables: Year 2: Sept 2003

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.422**	.109**	.290**
	Sig. (2-tailed)	.	.000	.010	.000
	N	571	567	565	554
Art Enjoyment	Pearson Correlation	.422**	1	.142**	.395**
	Sig. (2-tailed)	.000	.	.001	.000
	N	567	575	569	558
Academic Self-Concept	Pearson Correlation	.109**	.142**	1	.033
	Sig. (2-tailed)	.010	.001	.	.441
	N	565	569	579	560
School/Social Orientation	Pearson Correlation	.290**	.395**	.033	1
	Sig. (2-tailed)	.000	.000	.441	.
	N	554	558	560	563

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 (cont.)
Correlations between Four Psychosocial Variables: Observations over a Three-Year Period

Correlations Between Psychosocial Variables: Year 2: Feb 2004

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.445**	.294**	.306**
	Sig. (2-tailed)	.	.000	.000	.000
	N	548	542	539	522
Art Enjoyment	Pearson Correlation	.445**	1	.212**	.374**
	Sig. (2-tailed)	.000	.	.000	.000
	N	542	547	540	522
Academic Self-Concept	Pearson Correlation	.294**	.212**	1	.261**
	Sig. (2-tailed)	.000	.000	.	.000
	N	539	540	549	526
School/Social Orientation	Pearson Correlation	.306**	.374**	.261**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	522	522	526	531

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations Between Psychosocial Variables: Year 2: May 2004

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.406**	.345**	.284**
	Sig. (2-tailed)	.	.000	.000	.000
	N	525	521	524	525
Art Enjoyment	Pearson Correlation	.406**	1	.206**	.349**
	Sig. (2-tailed)	.000	.	.000	.000
	N	521	522	521	522
Academic Self-Concept	Pearson Correlation	.345**	.206**	1	.191**
	Sig. (2-tailed)	.000	.000	.	.000
	N	524	521	526	526
School/Social Orientation	Pearson Correlation	.284**	.349**	.191**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	525	522	526	619

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 (cont.)
Correlations between Four Psychosocial Variables: Observations over a Three-Year Period

Correlations between Psychosocial Variables: Year 3: Sept 2004

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.397**	.325**	.305**
	Sig. (2-tailed)	.	.000	.000	.000
	N	421	410	389	385
Art Enjoyment	Pearson Correlation	.397**	1	.176**	.255**
	Sig. (2-tailed)	.000	.	.000	.000
	N	410	421	392	385
Academic Self-Concept	Pearson Correlation	.325**	.176**	1	.271**
	Sig. (2-tailed)	.000	.000	.	.000
	N	389	392	405	382
School/Social Orientation	Pearson Correlation	.305**	.255**	.271**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	385	385	382	395

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations between Psychosocial Variables: Year 3: Feb 2005

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.503**	.353**	.275**
	Sig. (2-tailed)	.	.000	.000	.000
	N	422	403	379	368
Art Enjoyment	Pearson Correlation	.503**	1	.203**	.282**
	Sig. (2-tailed)	.000	.	.000	.000
	N	403	415	376	361
Academic Self-Concept	Pearson Correlation	.353**	.203**	1	.349**
	Sig. (2-tailed)	.000	.000	.	.000
	N	379	376	396	366
School/Social Orientation	Pearson Correlation	.275**	.282**	.349**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	368	361	366	383

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 (cont.)
Correlations between Four Psychosocial Variables: Observations over a Three-Year Period

Correlations between Psychosocial Variables: Year 3: May 2005

		Art Self-Concept	Art Enjoyment	Academic Self-Concept	School/Social Orientation
Art Self-Concept	Pearson Correlation	1	.417**	.327**	.321**
	Sig. (2-tailed)	.	.000	.000	.000
	N	369	369	364	364
Art Enjoyment	Pearson Correlation	.417**	1	.130*	.354**
	Sig. (2-tailed)	.000	.	.013	.000
	N	369	369	364	364
Academic Self-Concept	Pearson Correlation	.327**	.130*	1	.229**
	Sig. (2-tailed)	.000	.013	.	.000
	N	364	364	364	362
School/Social Orientation	Pearson Correlation	.321**	.354**	.229**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	364	364	362	364

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Reliability of Visual Literacy Scores

As described above, all Visual Literacy Assessment responses were read by at least two raters. If the two raters' scores were discrepant by more than one point, a third rater was brought in to reconcile the disagreement. In Year One, the third rater was required to reconcile discrepancies in only 13 responses of approximately 500 (2.6%). In Year Two, the reliability increased: there were discrepant initial scores in 16 of 1184 (1.4%) written responses. In Year Three, reliability remained high: there were discrepant initial scores in only 35 of 1184 (1.3%) written responses

A further check of the inter-rater reliability also showed extremely high results. In Year One, the correlation between the two raters' scoring on the visual literacy pretests was .825. The correlation was virtually identical on the visual literacy posttests. The correlation between rater scores was .801. In Year Two, reliability between raters was similar: the overall correlation for all tests was .740. In Year Three, inter-rater reliability stayed high, with an overall correlation of .711.

Description of Baseline Sample – Year One

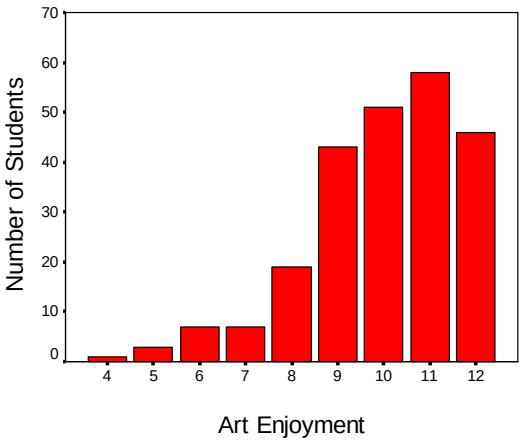
The following section describes the distribution of scores on the four psychosocial scales – Art Self-Concept, Art Enjoyment, Academic Self-Concept, and School/Civic Orientation – and the scores on the Visual Literacy Assessment tool.

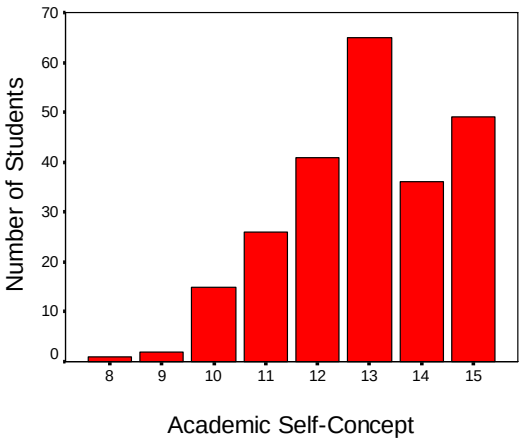
Two of the five scales – Art Self-Concept and Visual Literacy – had distributions quite close to the normal curve, with some positive skewness. The other three – Art Enjoyment, Academic Self-Concept, and School/Civic Orientation – had strong positive skewness. What this means is that more scores were above the mean than below, in other words, that the scores were 'top-heavy.' For example, most children scored high on Art Enjoyment even before the program intervention. However, the scores did not top out in Year One, and there was still room for improvement, especially among lower-scoring students. Means and frequency distributions for the five scales were as follows:

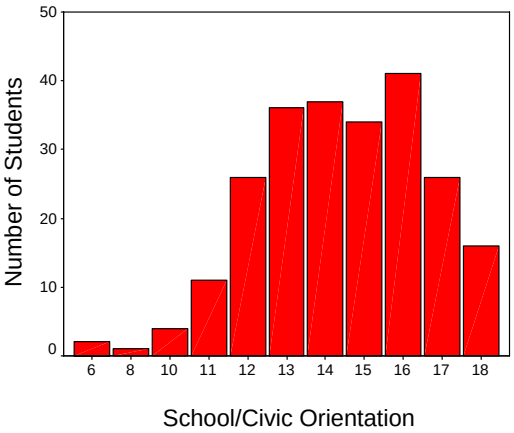
Table 3
Baseline-Year Statistics: Four Psychosocial Scale Scores and Visual Literacy

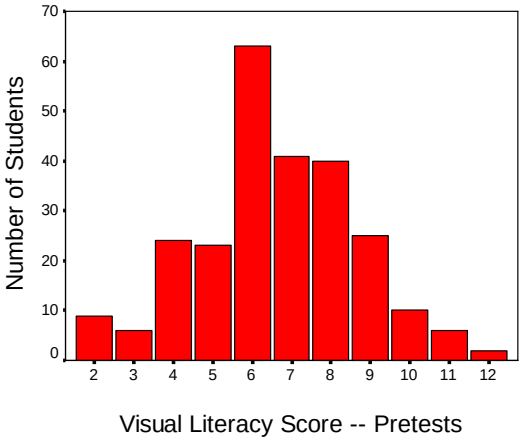
	N	Mean	Std. Deviation
Art Self-Concept	235	11.5	2.15
Art Enjoyment	235	10.0	1.66
Academic Self-Concept	235	12.9	1.56
School/Civic Orientation	234	14.4	2.19
Visual Literacy	249	6.6	2.04

Figure 1
Baseline-Year Distributions:
Four Psychosocial Scale Scores and Visual Literacy Assessment









Baseline Differences between Treatment and Comparison Schools

Since three schools received the Artful Citizenship program, and one school served as a comparison school – students there did not receive the program – it is important to examine any significant differences between the two groups at the starting point of the study. We thus compared the variables of central importance to the study: the four psychosocial measures and visual literacy. One of the four psychosocial scales differed between school types: academic self-concept was slightly higher in the treatment schools than the control school. Three of the four psychosocial measures did not differ significantly between treatment and comparison schools.

Students in the three treatment schools started at a disadvantage in visual literacy. The mean was nearly a full point (one-half standard deviation) higher in the comparison school on the 10-point visual literacy scale.

Table 4
Psychosocial Measures and Visual Literacy:
Baseline Differences between Comparison and Treatment Groups

First-Year Cohort

	Treatment or Comparison School	N	Mean	Std. Deviation	p-value
Art Self-Concept	Control	46	11.6	1.65	.464
	Treatment	184	11.4	2.26	
Art Enjoyment	Control	46	10.0	1.57	.886
	Treatment	184	10.0	1.70	
Academic Self-Concept	Control	46	12.5	1.44	.037
	Treatment	184	13.0	1.58	
School/Social Orientation	Control	46	14.4	1.92	.829
	Treatment	183	14.4	2.27	
Visual Literacy Score	Control	53	7.3	1.71	.006
	Treatment	173	6.5	2.10	

Analysis: Changes in Visual Literacy Scores over Five Observations

Visual literacy was assessed twice during Year One (February/March, and May/June) of the Artful Citizenship program, twice again in Year Two, and twice again in Year Three. For the Year One cohort, then, there was the possibility of examining changes in visual literacy over six points in time. Visual literacy scores from all three years (including six observations) were matched by student. There were 165 students who had scores from all three years out of a possible 249 matches, an attrition rate of 18.6 percent per year. This rate is very low for panel studies, and given high mobility rates in the Miami population (averaging 30%), was much lower than expected. For the students retained in the sample 136 (82%) had at least five assessments of visual literacy over the three-year period.

In order to answer Research Question #1 – the effect of the Artful Citizenship program on students' ability to interpret visual images (visual literacy) – a comparison was made between the growth rates of students between treatment and comparison schools. That is, the data allow us to see how visual literacy changes over time as a result of the program. If the program has a positive effect on scores over time, data should appear as shown in the theoretical model in Figure 2.

Figure 2
Theoretical Model for Testing the Effect of the Artful Citizenship Program on Visual Literacy Skills

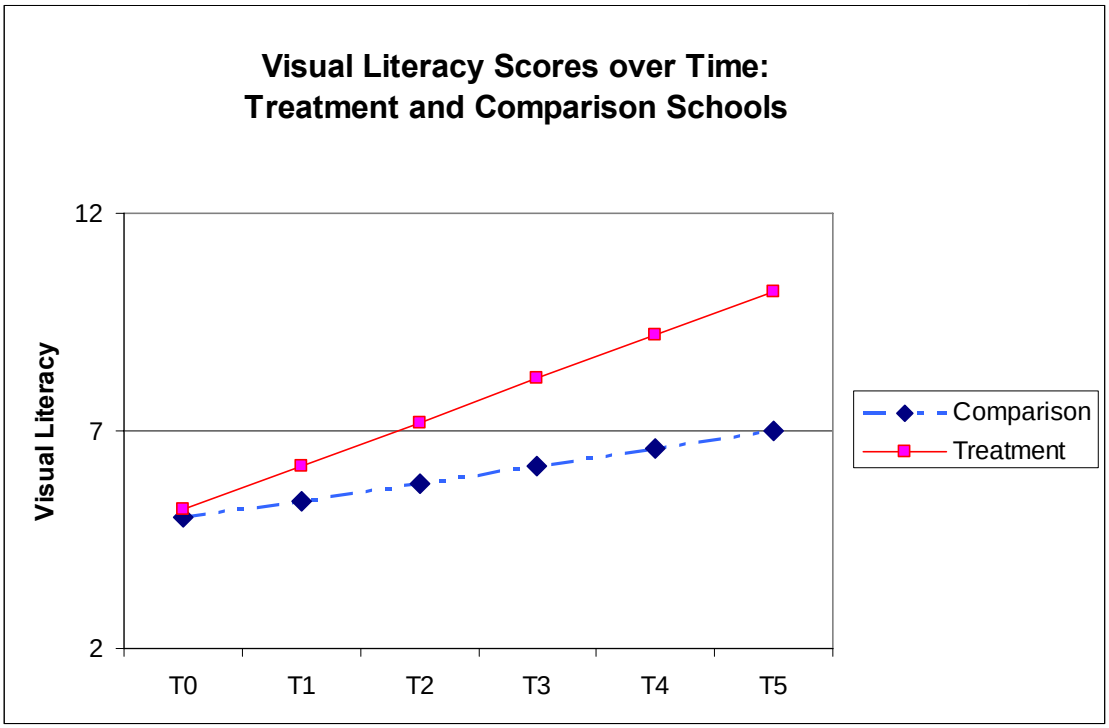
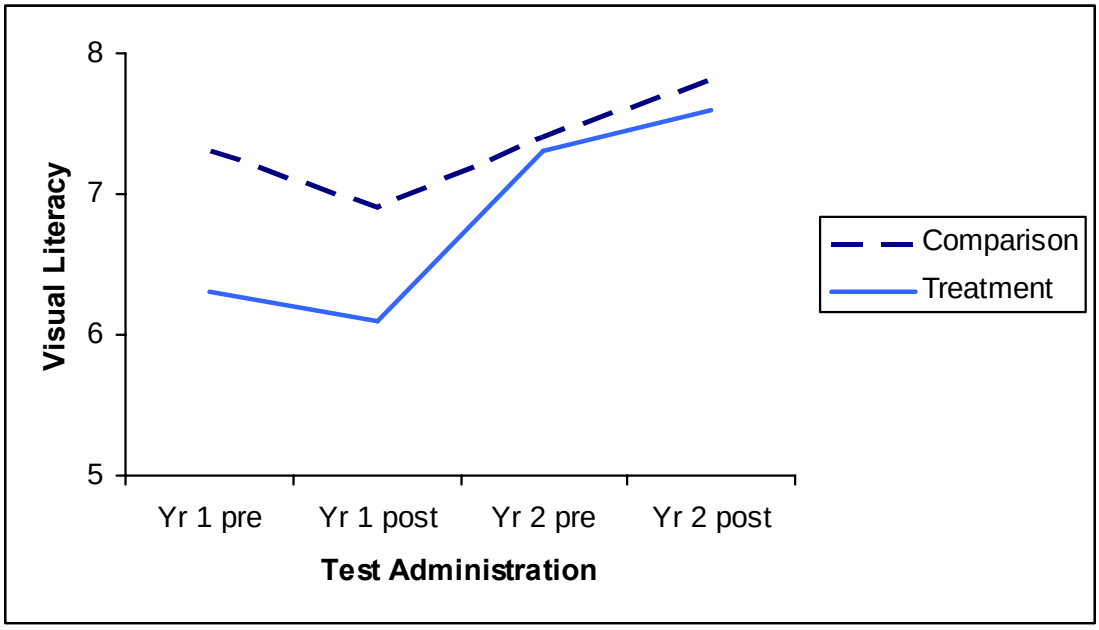


Figure 2 signifies that both groups would start with similar initial visual literacy scores. However, the group that received the Artful Citizenship program would develop more rapidly over the three-year period than students in the comparison school. (One assumes there is growth from developmental and psychosocial maturation for all students.)

The actual analysis included only five observations over the three-year period. This was a result of an anomalous drop in index scores from the Year One pretest to posttest, in both treatment and comparison schools, and for all indices – visual literacy and psychosocial scales as well. Rather than include the decline in the growth rate analysis – which was clearly an artifact of the scale administration – we used the score just prior to summer break to represent baseline levels for all indices. In other words, we used only five of the six possible data points. (Data over the first two project years are presented in Figure 3.)

Figure 3
Visual Literacy Scores on Four Repeated Measure Observations over a Two-Year Period
Comparison and Treatment Classes
(n = 171 to 183)



Treatment/Comparison		N	Mean	Std. Deviation
Comparison Group	T0	46	7.3	1.73
	T1	46	6.9	1.47
	T2	45	7.4	1.41
	T3	45	7.8	1.64
Treatment Group	T0	137	6.3	1.92
	T1	133	6.1	1.92
	T2	130	7.3	1.56
	T3	126	7.6	1.76

In order to compare the difference in growth rates in visual literacy, these rates were computed for each student. They are readily interpreted: for example, a score of 0.8 would mean that a student would increase by .8 points on the visual literacy scale for each observation. If that student started at a level of 5 points of visual literacy, she/he would have gained .8 points per each of the 5 observations, a total of 4.0 points. The student would then be expected to have scored 9 points (5 + 4) on the last observation.

Growth rates (also referred to as slopes) are compared between treatment and comparison students using a t-test, a simple test for the equality of means. Additionally, we provide graphs that represent visual literacy scores over time, comparing treatment and comparison students.

Students who received the Artful Citizenship program for three years had a significantly higher rate of growth in visual literacy than students in a comparison school. Students in the treatment schools had an average growth rate in visual literacy of .162 points per observation, .324 points per year on the 10-point visual literacy scale. In contrast, the estimate of change in visual literacy in the comparison school was essentially zero (.007). The students who received the Artful Citizenship program over the three-year period were likely to gain nearly a whole point in visual literacy (5 * .162, over 5 observations), while students who did not receive the program stayed at the same level they began.

Table 5
Growth Rates in Visual Literacy
Comparison and Treatment Classes
(n = 160 to 168)

Growth in Visual Literacy by Treatment/Comparison School

	Treatment or Comparison School	N	Mean	Std. Deviation	p-value
Visual Literacy Growth	Comparison	40	.007	.382	.0450
	Treatment	96	.162	.460	

Figure 4
Visual Literacy over Time:
Treatment and Comparison Schools

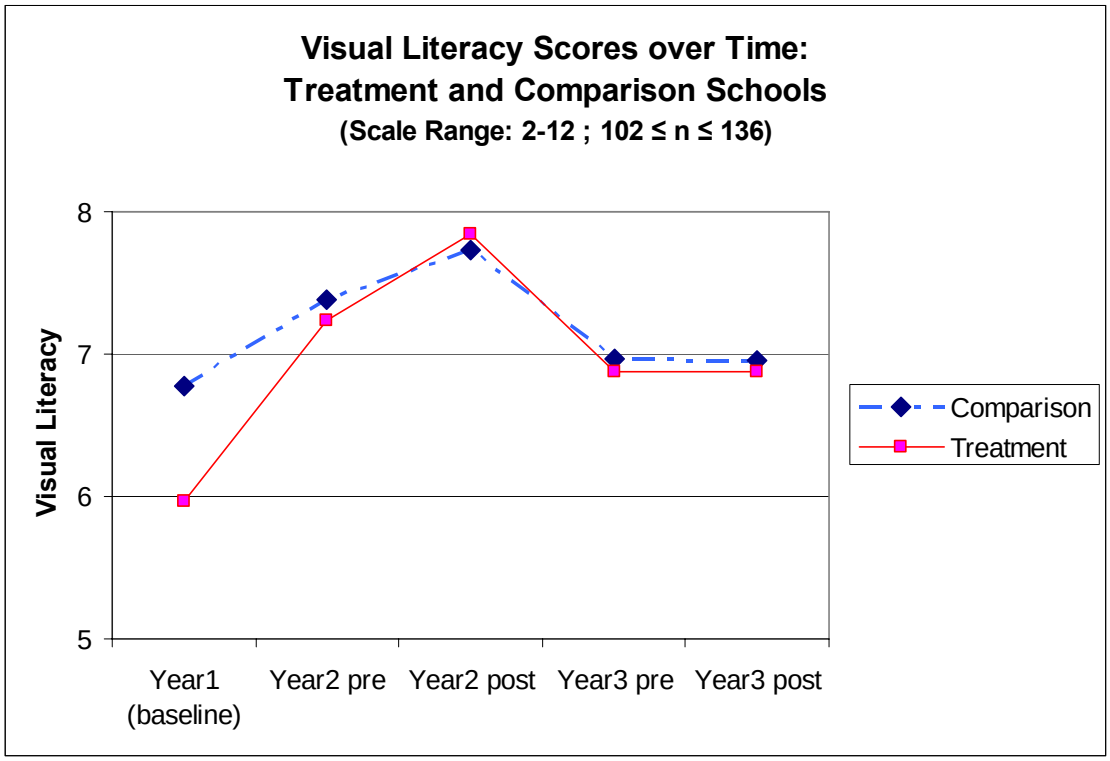


Figure 4 shows the change in mean visual literacy over time. The Artful Citizenship program played an almost compensatory role in visual literacy. The students in the treatment schools started almost one point behind the comparison students in visual literacy. By the end of the project, they had gained that point, and had ended up at the same level.

Analysis: Change in Psychosocial Scale Scores over Seven Observations

Four psychosocial measures – Art Self-Concept, Art Enjoyment, Academic Self-Concept and School/Civic Orientation – were assessed once during Year One (May 2003)) of the Artful Citizenship program. They assessed three times again in Year Two (September 2003, February 2004 and May 2004) and three times again in Year Three. For the Year One cohort, there was the possibility of examining changes in these measures over seven points in time. For the analyses presented below, we used five points: a baseline score in Year One, the pretest and the final posttest in Years Two and Three.

The analysis of changes in psychosocial scale scores will follow that of the visual literacy assessment. That is, growth rates will be compared between treatment and comparison groups – not absolute levels of the scores themselves.

Table 6
Growth Rates in Psychosocial Measures
Comparison and Treatment Classes
(n = 160 to 168)

Growth in Psychsocial Scales by Treatment/Comparison School

	Treatment or Comparison School	N	Mean	Std. Deviation	p-value
Art Self-Concept Growth	Control	38	.062	.620	.5410
	Treatment	95	-.026	1.002	
Art Enjoyment Growth	Control	38	.046	.369	.2910
	Treatment	93	-.042	.552	
Academic Self-Concept Growth	Control	38	.080	.779	.6210
	Treatment	89	.151	.613	
School/Social Orientation Growth	Control	39	-.079	1.291	.8610
	Treatment	90	-.118	.816	

There were no significant differences in growth rates of any of the four psychosocial scales between treatment and comparison classes. In fact, none of the growth rates was significantly different from zero over the three-year period. In other words, there was no measurable change in any of these measures over the course of the program, either in the treatment schools or the comparison school. Table 5 shows that the mean growth rates in both groups are very close to zero. Figures 5-8 shows the lack of change in the levels of these scales in a more graphic presentation.

Figure 5
Art Self-Concept Scores on Five Repeated Measure Observations over a Three-Year Period
Comparison and Treatment Classes

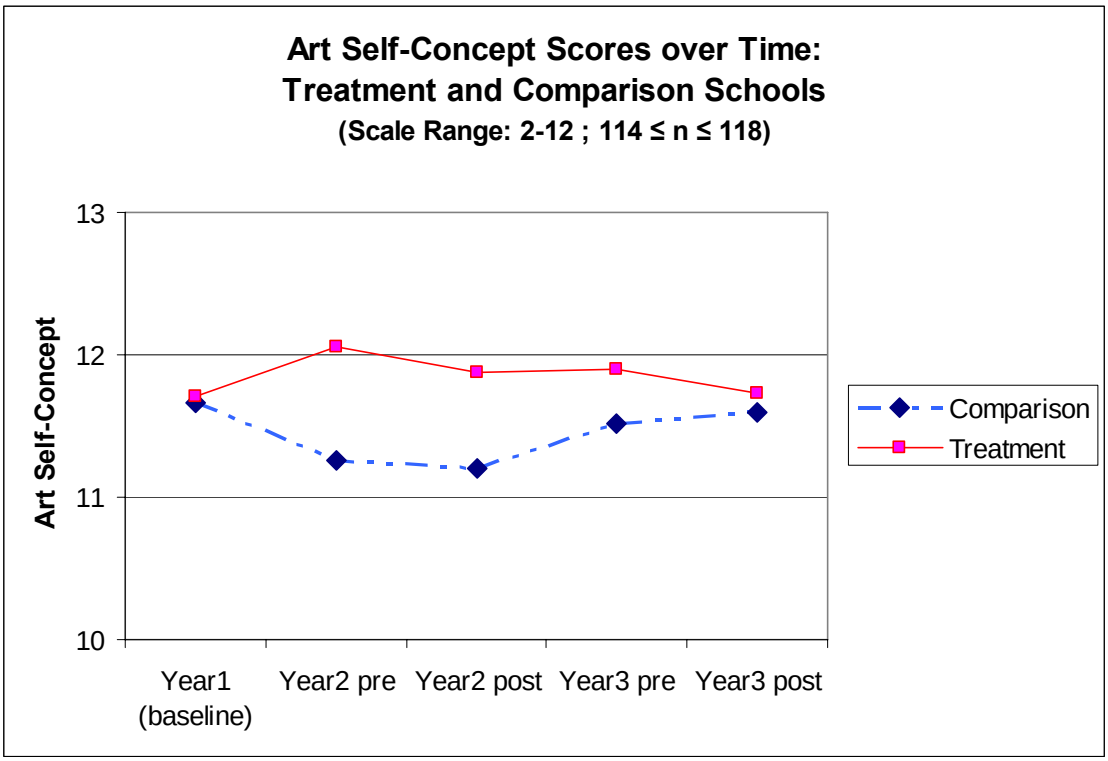


Figure 6
Art Enjoyment Scores on Five Repeated Measure Observations over a Three-Year Period Comparison and Treatment Classes

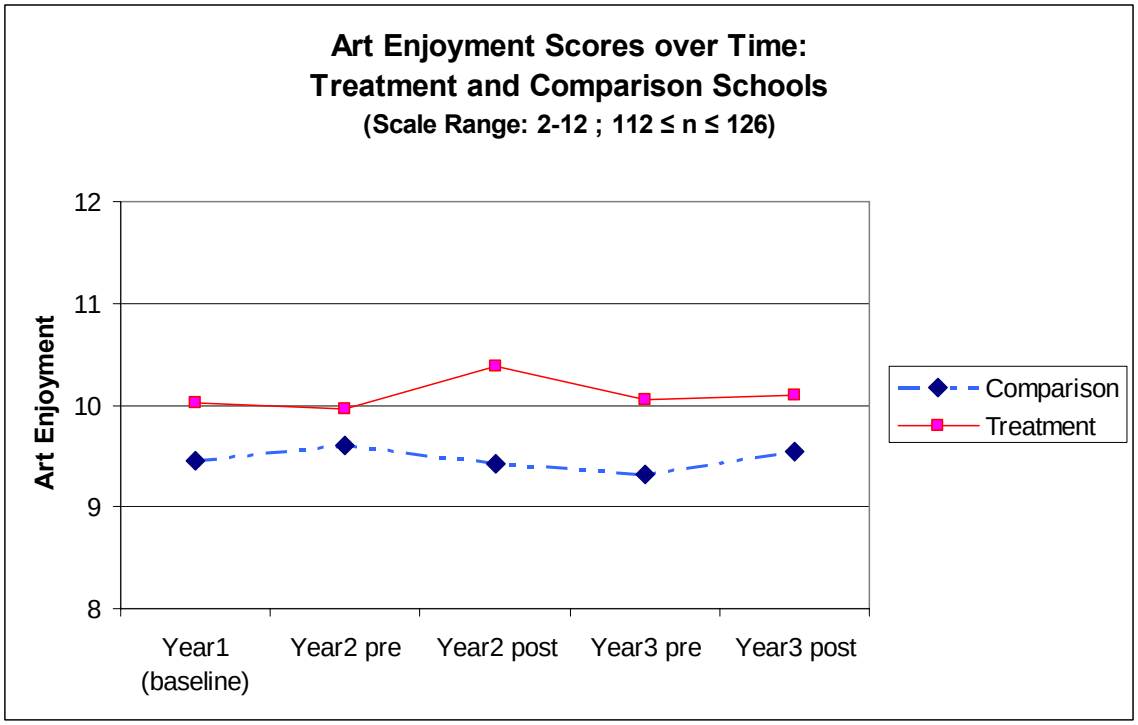


Figure 7
Academic Self-Concept Scores on Five Repeated Measure Observations over a Three-Year Period
Comparison and Treatment Classes

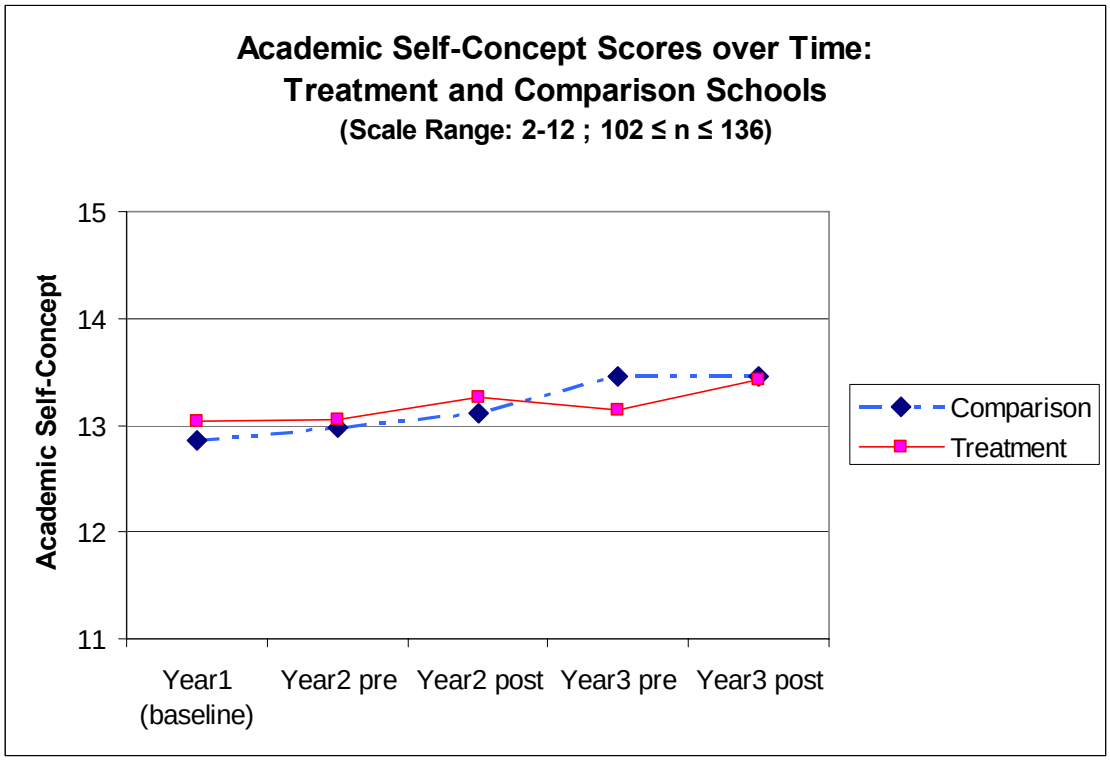
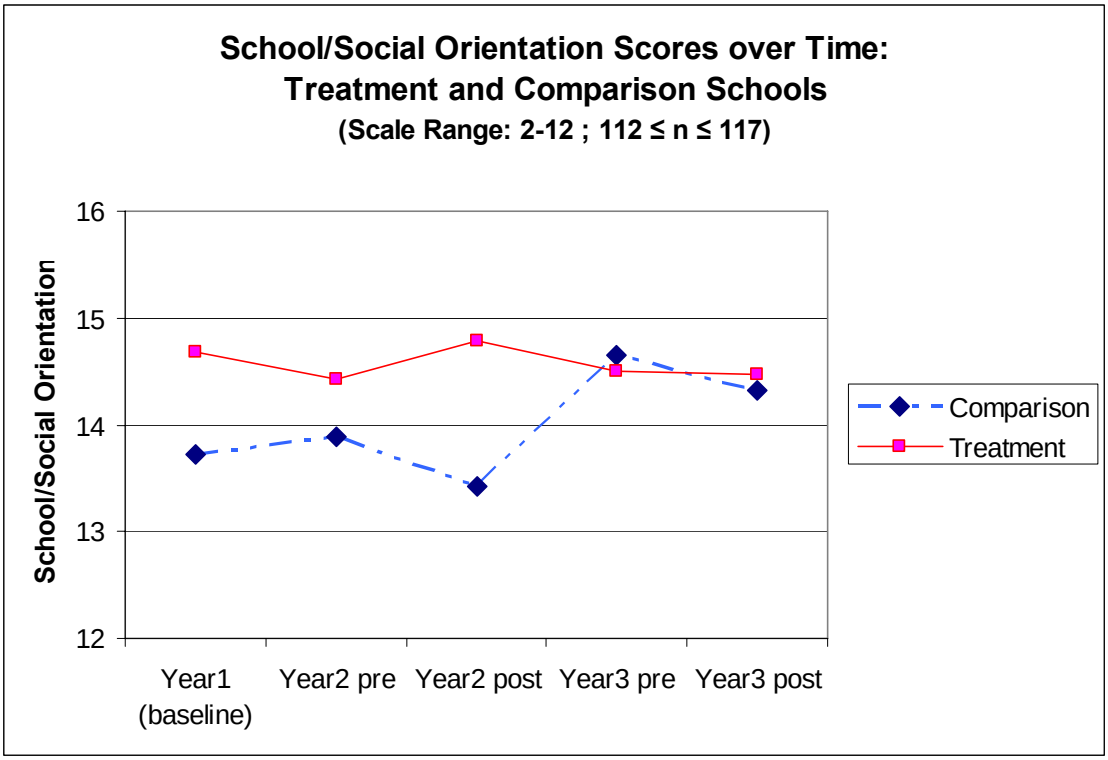


Figure 8
School/Social Orientation Scores on Five Repeated Measure Observations over a Three-Year Period Comparison and Treatment Classes



Analysis: How Changes in Visual Literacy are Associated with Changes in Psychosocial Dimensions

Although it is clear that the program had a positive impact on visual literacy, there was no relationship between growth rate in visual literacy and the four psychosocial measures. (See Table 7 below.) Only one significant correlation was found between change in visual literacy and change in any of the psychosocial measures, and that was a negative association in the treatment group between visual literacy and the school/social composite score.

Table 7
Growth Rates in Visual Literacy and Psychosocial Measures
Pearson Correlation Coefficients
(n = 152 to 171)

Correlations

Treatment or Comparis			Visual Literacy Growth	Art Self-Concept Growth	Art Enjoyment Growth	Academic Self-Concept Growth	School/Social Orientation Growth
Control	Visual Literacy Growth	Pearson Correlation	1	.103	-.033	.038	-.067
		Sig. (2-tailed)	.	.538	.844	.821	.687
		N	40	38	38	38	39
	Art Self-Concept Growth	Pearson Correlation	.103	1	.685**	.101	-.161
		Sig. (2-tailed)	.538	.	.000	.550	.334
		N	38	38	38	37	38
	Art Enjoyment Growth	Pearson Correlation	-.033	.685**	1	.183	-.090
		Sig. (2-tailed)	.844	.000	.	.278	.589
		N	38	38	38	37	38
	Academic Self-Concept Growth	Pearson Correlation	.038	.101	.183	1	.691**
		Sig. (2-tailed)	.821	.550	.278	.	.000
		N	38	37	37	38	38
	School/Social Orientation Growth	Pearson Correlation	-.067	-.161	-.090	.691**	1
		Sig. (2-tailed)	.687	.334	.589	.000	.
		N	39	38	38	38	39
Treatment	Visual Literacy Growth	Pearson Correlation	1	-.061	-.126	.190	-.235*
		Sig. (2-tailed)	.	.559	.228	.075	.026
		N	96	95	93	89	90
	Art Self-Concept Growth	Pearson Correlation	-.061	1	.278**	.114	.114
		Sig. (2-tailed)	.559	.	.007	.289	.288
		N	95	95	92	88	89
	Art Enjoyment Growth	Pearson Correlation	-.126	.278**	1	-.044	.369**
		Sig. (2-tailed)	.228	.007	.	.687	.000
		N	93	92	93	86	87
	Academic Self-Concept Growth	Pearson Correlation	.190	.114	-.044	1	-.002
		Sig. (2-tailed)	.075	.289	.687	.	.985
		N	89	88	86	89	86
	School/Social Orientation Growth	Pearson Correlation	-.235*	.114	.369**	-.002	1
		Sig. (2-tailed)	.026	.288	.000	.985	.
		N	90	89	87	86	90

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Analysis of Student Achievement: Growth Rates (Slopes) of Visual Literacy and Standardized Achievement Tests

Growth curves were calculated for student achievement in reading and mathematics by plotting three years of achievement data (one observation per year) and calculating the slope. In order to investigate the association between changes in visual literacy growth and changes in student achievement, Pearson correlation coefficients were computed.

In the three treatment schools, there was a strong correlation between growth in visual literacy and three of the four measures of student achievement – two for criterion-based achievement and one for norm-referenced achievement. For the standards-based exams in reading and mathematics, correlations approached 0.4 – a remarkably strong association. However, in the comparison schools, there was no association between visual literacy and student achievement.

There was also a strong association in the treatment schools between growth in visual literacy and mathematics achievement on the norm-referenced test (NRT). Only the correlation between visual literacy growth and reading growth on the norm-referenced test fell short of statistical significance, but the estimated association was still positive. Of course, scores on norm-referenced tests are based on the performance of all students in the testing domain – in this case, a national sample. Because scores on NRTs are affected by all other students in the domain, it is safer to assess the relationship between visual literacy and achievement using criterion-referenced measures. (See Table 8.)

Table 8
Growth Rates in Visual Literacy and Student Achievement: Criterion-Based and Norm-Referenced Tests
Pearson Correlation Coefficients
(n = 152 to 171)

Correlations

Treatment or Comparis			Visual Literacy Growth	Reading Percentile Growth (NRT)	Math Percentile Growth (NRT)	FCAT Reading Growth	FCAT Math Growth
Control	Visual Literacy Growth	Pearson Correlation	1	.055	.115	.127	-.382*
		Sig. (2-tailed)	.	.738	.486	.436	.015
		N	40	40	39	40	40
	Reading Percentile Growth (NRT)	Pearson Correlation	.055	1	.160	.341*	.142
		Sig. (2-tailed)	.738	.	.329	.031	.383
		N	40	40	39	40	40
	Math Percentile Growth (NRT)	Pearson Correlation	.115	.160	1	-.092	.203
		Sig. (2-tailed)	.486	.329	.	.576	.216
		N	39	39	39	39	39
	FCAT Reading Growth	Pearson Correlation	.127	.341*	-.092	1	.317*
		Sig. (2-tailed)	.436	.031	.576	.	.046
		N	40	40	39	40	40
	FCAT Math Growth	Pearson Correlation	-.382*	.142	.203	.317*	1
		Sig. (2-tailed)	.015	.383	.216	.046	.
		N	40	40	39	40	40
Treatment	Visual Literacy Growth	Pearson Correlation	1	.161	.344**	.356**	.389**
		Sig. (2-tailed)	.	.120	.001	.000	.000
		N	96	95	96	96	96
	Reading Percentile Growth (NRT)	Pearson Correlation	.161	1	.399**	.489**	.391**
		Sig. (2-tailed)	.120	.	.000	.000	.000
		N	95	95	95	95	95
	Math Percentile Growth (NRT)	Pearson Correlation	.344**	.399**	1	.496**	.458**
		Sig. (2-tailed)	.001	.000	.	.000	.000
		N	96	95	96	96	96
	FCAT Reading Growth	Pearson Correlation	.356**	.489**	.496**	1	.406**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	96	95	96	96	96
	FCAT Math Growth	Pearson Correlation	.389**	.391**	.458**	.406**	1
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	96	95	96	96	96

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Analysis of Student Achievement: Growth Rates (Slopes) of Psychosocial Scales and Standardized Achievement Tests

Although student achievement was strongly associated with visual literacy, there was no significant association between student achievement and any of the four psychosocial scales. This was the case in both treatment and comparison schools. (See Table 9.)

Correlations

Treatment or Comparison School			Reading Percentile Growth (NRT)	Math Percentile Growth (NRT)	FCAT Reading Growth	FCAT Math Growth
Control	Art Self-Concept Growth	Pearson Correlation	-.134	.079	-.261	-.173
		Sig. (2-tailed)	.423	.641	.113	.298
		N	38	37	38	38
	Art Enjoyment Growth	Pearson Correlation	-.189	.050	-.244	-.143
		Sig. (2-tailed)	.256	.771	.140	.390
		N	38	37	38	38
	Academic Self-Concept Growth	Pearson Correlation	.102	.138	-.058	-.022
		Sig. (2-tailed)	.544	.416	.727	.894
		N	38	37	38	38
	School/Social Orientation Growth	Pearson Correlation	-.124	-.041	-.082	-.022
		Sig. (2-tailed)	.451	.806	.618	.892
		N	39	38	39	39
Treatment	Art Self-Concept Growth	Pearson Correlation	.067	-.079	-.144	-.202
		Sig. (2-tailed)	.522	.448	.163	.049
		N	94	95	95	95
	Art Enjoyment Growth	Pearson Correlation	-.033	-.070	-.028	.001
		Sig. (2-tailed)	.755	.507	.789	.991
		N	92	93	93	93
	Academic Self-Concept Growth	Pearson Correlation	.031	.170	.199	.043
		Sig. (2-tailed)	.775	.111	.062	.690
		N	88	89	89	89
	School/Social Orientation Growth	Pearson Correlation	-.015	.009	.022	-.046
		Sig. (2-tailed)	.886	.930	.839	.666
		N	89	90	90	90

An Appraisal of the Performance of the Psychosocial Scales

We began the study with five psychosocial scales – two related to art (Art Enjoyment and Art Self-Concept) – and three related to school and social behavior (Academic Self-Concept, School Orientation, and Social Orientation). Because of very low reliability coefficients, we combined the last two into a School/Social Orientation scale.

There is considerable evidence to doubt the validity of these scales. First, reliabilities remained very low, even when deleting certain items that improved the scales. Cronbach alpha coefficients varied between .45 and .66 in the last year of testing, and these were the highest in the project period. Typically, researchers are not satisfied with reliability coefficients under .80.

Second, there was little predictive or construct validity to be found in the analysis. Art measures did not increase over the three-year period in the treatment group, despite continuous and child-centered exposure to the art-based visual literacy curriculum and studio art activities. What is worse, academic self-concept was not associated with academic achievement in any of the four measures.

A clear problem with the use of these scales is that they are not stated in the goals of the Artful Citizenship curriculum. It was important to select these scales before the beginning of the project, in order to establish baseline levels. As a result, they are not ideal measures of the outcomes targeted in the curriculum. Although the scales looked dubious even in the baseline year testing, the researchers thought it important to retain them over the course of the project for comparability reasons. However, measures more directly tied to the curriculum would have been much more appropriate.

Our conclusion about the impact of the program on psychosocial measures is, then, tentative. The lack of significant findings around these scales is probably due to their dubious psychometric properties. It would not be prudent to attribute the lack of change to the program – rather the scales were poor.

Summative Three-Year Findings

This following section summarizes the results of three-year program performance indicators and measures.

- **Students who received the Artful Citizenship program for three years had significantly higher growth rates in visual literacy than comparison group students.**

  The Artful Citizenship program was effective in developing visual literacy skills. The growth rate of the treatment group over the project period was demonstrably higher than the growth rate in the comparison school – comparison group students experienced virtually no growth in visual literacy. In contrast, students who received the Artful Citizenship program gained nearly a full point (on the ten-point scale) over the three-year project.

- **There was a strong relationship between growth in visual literacy and growth in student achievement in both reading and mathematics.**

  In the three treatment schools, growth in visual literacy was strongly correlated with three of the four measures of student academic achievement – two for criterion-based achievement and one for norm-referenced achievement. Correlations between growth in visual literacy and achievement were between .35 and .40, extremely high figures for variables associated with student achievement. These relationships did not manifest themselves in the comparison school.

- **The psychosocial scales were not trustworthy.**

  There were five psychosocial scales in the original design. We collapsed selected items for two scales into a combined scale. Even then, reliability coefficients were below acceptable levels. Additionally, predictive and construct validity were not evident in their associations with other variables. For example, there was no relationship between participation in the program and changes in the four psychosocial measures, nor between psychosocial measures and student achievement.

Artful Citizenship Project Implementation

The evaluation team conducted site visits throughout the three years of the project in order to answer the evaluations questions addressing the organizational dimensions of the project. These dimensions include classroom implementation, program integration, school climate, support from principals and lead teachers, parental and community involvement, and "best practices" that emerged over the three years of project implementation. Drawing on qualitative and naturalistic research techniques, evaluators conducted structured and non-structured interviews with teachers, school administrators, students, and project staff; observed and described how the project curriculum was implemented in the classroom; described the organization of the classroom; noted the level of integration of arts into other subject areas; and looked for the overall effect of the project on the school as a whole.

Data for the formative evaluation were collected primarily by taking written notes. For structured interviews, the Artful Citizenship Site Visit Protocol was used as a general guide, with evaluators maintaining a flexible approach appropriate to the context of the interview. **(S**ee Appendix G.**)** Interviews were transcribed, with the goal of identifying common and contrasting themes. Findings were reported to project staff so that continuous improvements could be made.

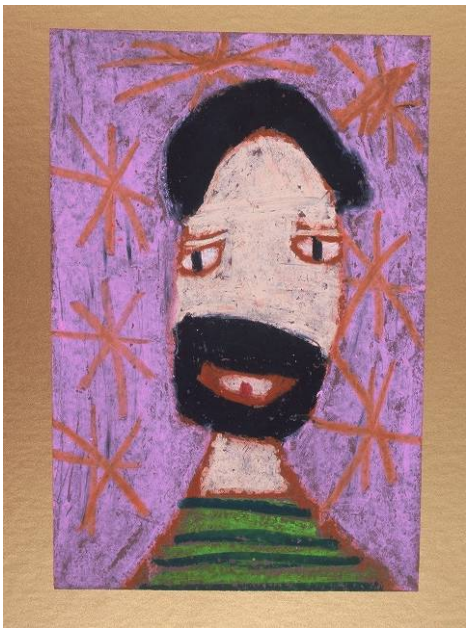
Summary of Evaluator Site Visits in Years One-Three

In Year One of the Artful Citizenship Project, formative assessment was conducted through attendance and observation of two teacher training workshops held at The Wolfsonian. The workshops were targeted to classroom teachers selected to implement the Artful Citizenship curriculum. The Artful Citizenship Year One Baseline Data Report summarizes these workshops as well as evaluators' meetings with project staff on the processes and strategies utilized by The Wolfsonian and their partners (Florida International University and Miami-Dade County Public Schools) in the development of the curriculum.

In Year Two, formative assessment of the project began with the Artful Citizenship Summer Institute held from August 11-15, 2003 at The Wolfsonian. The institute was designed as a professional development graduate course and organized by The Wolfsonian in partnership with Florida International University's College of Education. Project evaluators were both participants and observers during the course, and they

conducted numerous informal interviews with teachers, professors, project staff, and featured guest presenter Philip Yenawine, co-founder of Visual Understanding in Education (VUE) and nationally-known museum educator.

In the fall of Year Two, the evaluation team carried out a series of site visits to the three elementary schools participating in the project. Two days a month were set aside in October, November, and December for these visits. Implementation of the program was observed in 13 different third- and fourth-grade classrooms per month. With only two exceptions, the same classrooms were observed each month in order to track their progress as they worked through the stages of the Artful Citizenship curriculum. In addition to classroom observation, interviews were conducted with principals, assistant principals, classroom teachers, art teachers, and staff of The Wolfsonian in order to obtain the broadest possible view of how the program was being implemented in each school.



In Year Three, the final year of the Artful Citizenship research project, evaluators attended the second Artful Citizenship Summer Institute held from August 9-13, 2004, and conducted informal interviews with teachers, presenters, and project staff. During the school year, the evaluation team visited the three project schools in October 2004 and January 2005 for two days each month. The primary goal of these visits was to formally interview experienced project teachers in order to obtain their perspectives and feedback on how the curriculum worked in their classrooms. The team also visited fourth- and fifth-grade classrooms to directly observe the implementation of the Artful Citizenship curriculum.

Teacher Training

The training of teachers to implement Artful Citizenship was an important focus of the formative evaluation, reflecting not only the need for a thorough preparation of teachers for the successful implementation of the project curriculum, but also for the project to be well integrated into the educational environment. In the Artful Citizenship model, teachers – both classroom and art teachers – are active participants in the research and evaluation process. Gathering teacher feedback is part of a continuous internal assessment of curriculum materials and the effectiveness of these materials in meeting project objectives. With the goal of teacher participation in the research process in mind, Artful Citizenship was designed with a strong professional development component that encompassed instruction in the pedagogical theory of the visual literacy approach and detailed training in *Visual Thinking Strategies*© (VTS), the learner-centered visual literacy method used to teach students to examine and find meaning in visual art. Additional

professional development focused on the integration of the Artful Citizenship curriculum materials (My Travel Log) in their teaching practices.

Year One

In the first year of the project, a series of teacher workshops and debriefing sessions were held both before and during the first implementation in third-grade classrooms in the three project schools. At the end of the school year, a final roundtable discussion and debriefing session was held at The Wolfsonian to allow participating teachers – both classroom and art teachers – to share their experiences instituting the Artful Citizenship curriculum in their third-grade classrooms during the previous weeks. The evaluation team attended and participated in one workshop and the final roundtable discussion.

In keeping with the project's emphasis on the central role of teachers in the research and evaluation process, the workshop began with a review of the project's design, objectives, funding history, and the larger context of funding for arts-based education programs. VTS© exercises and a discussion of the problems and challenges teachers had previously encountered in using the visual literacy strategy in the classroom followed. The highlight of the workshop was the introduction of the project's curriculum materials. Project staff emphasized that these materials were best viewed as a "working tool" that would be refined as the project proceeded.

The teacher roundtable discussion at the end of Year One allowed participating teachers to share their experiences instituting the project's curriculum in their classrooms during the previous six weeks. The purpose of the session was to get teachers' feedback on how the curriculum worked with their students, what they liked best and least about it, and what presented special challenges. Teachers offered their most specific feedback on the geography images and lessons in Unit 3 – "Mapping: Perspective and Location" – and on the making and use of journals. Some teachers reported excellent results with the journals, and they shared the ideas and samples their students had made with the rest of the group. Project staff incorporated many of the teachers' suggestions in the revised curriculum for the following year.

Year Two

Teacher training in Year Two began with the Artful Citizenship Summer Institute held in August of 2003. The Institute was designed as a professional development graduate course and was organized by The Wolfsonian in partnership with Florida International University College of Education. Professors for the course were Hilary Landorf, Ph.D. and Joyce Fine, Ed.D., faculty members at FIU's College of Education. The featured guest presenter was Philip Yenawine, co-founder of Visual Understanding in Education (VUE) and nationally-known museum educator.

The purpose of the course was to provide elementary classroom and art instructors with developmentally-appropriate strategies to teach visual literacy and stimulate critical thinking as they integrate art in their teaching of core content areas such as language arts and social studies. The course also addressed student-centered learning theory and visual literacy research findings through required readings and presentations on these topics by Mr. Yenawine. Finally, the course aimed to help instructors integrate new technology into the visual literacy curriculum to teach and assess student achievement in the classroom.

The academic content ranged from theoretical to practical. For example, teachers explored the theoretical underpinnings of VTS© by reviewing Piaget's work on child development as it relates to object-based learning, and they conducted intensive VTS© exercises, playing both roles of facilitators and students. Teachers, project staff, presenters and evaluators alike found the Institute to be useful and informative. Some went further, describing it as "very enlightening," "full of surprises," and "excellent." The evaluation team noted the uniquely positive working environment that allowed for continual feedback and creative commentary among the participants.

Year Three

At the beginning of the third year of the project, the second Artful Citizenship Summer Institute was held in August of 2004. Evaluators found this Institute even better organized, with a more efficient use of time, than the first one. The project staff's experience with the Institute the previous year and the lessons learned over the first two years of the project undoubtedly played a role in the effort's success. Of particular interest was the way in which project staff had incorporated teacher recommendations about the curriculum from the previous year into the latest version. Teachers were pleased to see that their contributions had been taken into account.

The Artful Citizenship Model

The Artful Citizenship model consists of two main components: VTS© as a stand-alone method followed by the Artful Citizenship curriculum, which combines the use of the methodology with structured social studies/language arts learning units. The visual literacy lessons are introduced first and conducted once a week for the first six weeks without explicit reference to social studies content. The aim is to teach students basic visual literacy and critical thinking skills, improve oral communication and language use, and develop positive social skills. After six weeks of visual literacy lessons alone, the Artful Citizenship curriculum is administered over a period of three to six weeks in the classroom and art studio.

The VTS© method requires the teacher to facilitate the learning process while remaining non-directive, using the following question prompts: ***What is happening in this picture? What do you see that makes you say that? What more can you find?*** Three additional questions are added in the fourth grade lessons: ***Now, let's examine the characters in this image more closely. What more can you say about this person?*** In the next lesson the teacher adds: ***Where do you think the artist was positioned to see the picture this way?*** And then: ***What object in the picture seem close to us? Far from us? In-between? Follow up with "What does the artist do to make you say that"***

Teachers are asked to listen carefully to and acknowledge every answer by looking with the students at the image, pointing to the details mentioned, and paraphrasing what students say. As the discussion progresses, teachers facilitate by linking various converging and diverging opinions and helping students to synthesize a variety of

viewpoints. By encouraging further inquiry, the learning process remains open-ended as students search for new ideas and information.

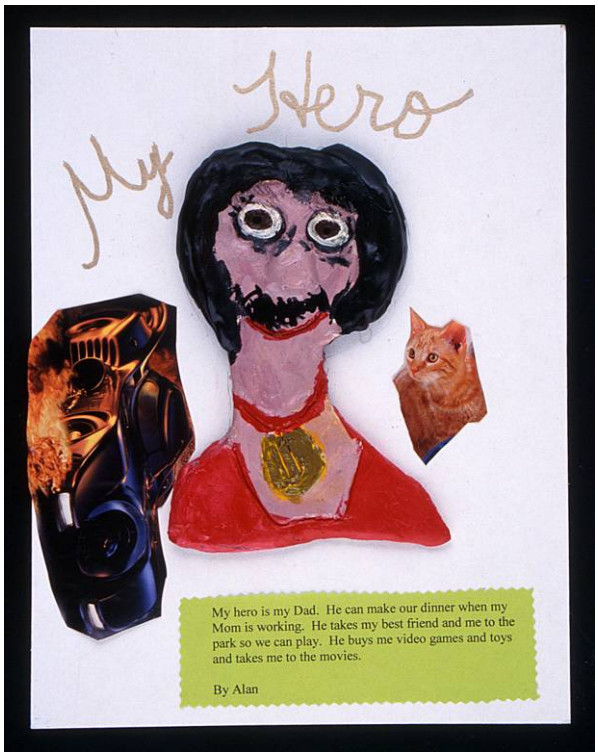
The four-part Artful Citizenship curriculum contains three units that are organized as "legs" of a journey. These three units are implemented by the classroom teacher and the curriculum materials for each grade are correlated to Florida and national standards and benchmarks. Each "leg" begins with a one-hour visual literacy lesson that focuses on three pre-selected images related to a particular social studies theme. This lesson sets the stage for the next two to three days of activities. Lesson Two builds on the previous image-based discussion through drawing and writing activities, which act as a bridge to upcoming social studies content. Lesson Three focuses on vocabulary used in the upcoming social studies activities. Lesson Four, entitled "Dig Deeper," builds on the previous days' activities by placing the student in the role of the historian or social scientist and focusing on specific social studies themes. The term "Dig Deeper" implies a plan for exploring further and discovering something new or unique.

Each "leg" of the Artful Citizenship journey ends with a lesson called "Symbol Quest," which includes exercises for students to gather and use symbols commonly found in the immediate environment and media. This section can be implemented by the classroom or the art teacher as they wish.

The culminating unit of the Artful Citizenship curriculum is implemented in the art studio by the art teacher and represents a synthesis of the previous nine weeks of lessons. This section, called "Art in Action," engages students to take on the role of the designer who must conceive, plan, and execute an art-making project that addresses a particular societal issue. Each grade is provided with three suggested issues that are related to the social studies content addressed in the previous "legs" of the Artful Citizenship journey. Possible projects include: a portrait of a hero, a map of a dream community, a book containing family recipes from the whole class, a dwelling for a specific ecological system, a three-dimensional map of a fantasy island, and a book with transcribed oral histories and portraits of each student in the class. These projects can be executed as individual or group collaboration as appropriate.

Curriculum Implementation in the Classroom

Evaluators systematically observed the Artful Citizenship model in action in 19 different classrooms over the three years of the project. Most of these were visited repeatedly as the project unfolded in order to observe the pedagogical progression of both teachers and students. Teachers in all three schools, without exception, conducted the visual literacy lesson adequately. Some were outstanding, showing particular skill in paraphrasing and linking. Students were consistently attentive and eager to participate.



While all teachers made efforts to implement the Artful Citizenship curriculum as closely as possible to the norms and guidelines established in the trainings, evaluators also observed considerable variation in the way most aspects of the curriculum were implemented in individual classrooms. Some teachers seemed more comfortable with the Artful Citizenship method and philosophy than others. In spite of having an hour each week during their language arts block specifically designated for Artful Citizenship, as well as the directive to work in Artful Citizenship lessons into their daily schedule as they could, many teachers had difficulty finding enough time to administer the curriculum, and many fell behind schedule. Others had trouble properly spacing and sequencing the lessons. In addition, implementation of the curriculum was much less even than the visual literacy-only portion that preceded it, which required less direct instruction. This was true for all three schools. Nonetheless, attentiveness and enthusiasm shown by students remained as high during the curriculum implementation as it was during the six weeks of the visual literacy-only component.

It should be noted that divergences between what designers of educational innovations expect implementation to look like in practice and what they actually look like are common. Indeed, a little-discussed function of program evaluations is their role in providing rich descriptions of what programs actually do. For this reason, evaluators made efforts to document what occurred in classrooms by compiling “thick descriptions” of how the curriculum was presented in the classroom and how students responded to it. Two of these descriptions, the first of a visual literacy-only class and the second of an Artful Citizenship curriculum class (with a visual literacy introduction to the social studies content) are presented below to illustrate the concept.

October 23, 2003
Phyllis Ruth Miller Elementary School

The first visit of the day was to a fourth-grade classroom that proved to be a good example of proper VTS© implementation. The session began with the teacher asking her students to move to the front of the room and sit closely in front of the projection screen. There was an air of anticipation as the lights were lowered. As the first image was displayed, almost every child's hand went up when the teacher asked what was happening in the picture. After each child spoke, the teacher carefully restated his or her comments without altering or adding to them in any significant way. The students were then challenged to explain their comments with the question, "What do you see that makes you say that?" The teacher effectively used this question to keep the discussion focused on plausible explanations.

Moving steadily around the room and calling each child by name, the teacher gave everyone the opportunity to speak. In fact, she may have allowed for too much repetition of what was essentially the same observation. Nevertheless, she showed skill in paraphrasing students' comments and linking their ideas as the discussion progressed. She stopped well short of leading the students with her own interpretations, in accordance with VTS© principles.

In their observations, students tended to mimic the language that the teacher used to generate discussion about the images. For example, one child offered this comment about an image of a hesitant-looking girl and her mother standing in a doorway: "I agree with Carlos about the girl being afraid, and I would like to add that maybe it's because she sees something outside that her mother doesn't see." The teacher modeled the behavior from the beginning by using similar "linking" language to note when a child's comment agreed with the previous one. If a child pushed forward the interpretation with a new idea, she noted that the student was "adding" to the first comment. If the new idea diverged substantially from previous one, she simply pointed out the difference of opinion. The tone of the discussion was always polite and

respectful, and all opinions were welcomed by both the teacher and the students without judgment. With this approach, the discussion gradually became richer and explanations more complex.

November 14, 2003
Miami Gardens Elementary School

The fourth-grade class was well-organized from start to finish. The class had completed the visual literacy exercise for the First Leg of the Artful Citizenship journey entitled "Who am I?" the previous day, and the teacher was preparing her students for the "2nd Stop: Travel Log Entry," which consisted of a short writing assignment followed by an opportunity for drawing a picture of people in the student's family or community spending time together.

As in the October visit, the teacher facilitated the visual literacy discussion well, drawing out rich and detailed descriptions of the images. She linked students comments exceptionally well and frequently made comparisons between the themes of family and community in the images and how the same themes might be expressed locally. For example, when a student said he thought the people in an image were roasting a pig in the ground, she responded, "Yes, like the Cuban people in this area roast pigs in the ground."

The teacher also spoke about the artists' perspective in ways that no other teacher had done. For example, she asked "Where was the artist positioned when he or she painted this picture?" She also pointed out that images looked different when seen from different distances. When a student referred to a "watery area" in an image, the teacher asked her to come forward and look again, knowing that the girl would probably change her mind about her description. Students seemed to respond to this type of facilitation by including the reasoning for their statements in their initial responses. Consequently, the teacher did not often ask the second question "What do you see that makes you say that?"

At the end of the class, the teacher gave a thorough introduction to the writing and drawing activities that students would complete the following day. "You want to add details like sounds, colors, smells, textures, clothing – anything you can think of – when you're writing about activities that your families do together. And please think about why your family and friends chose to do the activity. Are you celebrating something?

Does it have to do with your culture? Or maybe it's just something you enjoy doing together."

Interviews with Teachers and School Administrators

The evaluation team conducted more than a dozen formal interviews with teachers and school administrators over the three years of the project. In addition, numerous informal interviews with teachers in a variety of settings, such as during breaks, before or after class, and at teacher training events were carried out when possible. The interviews were transcribed and the views expressed identified and sorted according to topic, with the goal of identifying common and contrasting opinions on a variety of issues. In most cases, teachers' opinions converged toward a commonly-held general view on a given topic. Unless otherwise noted, individual teacher comments can be taken as representing widely-held views.

Project Effectiveness in the School

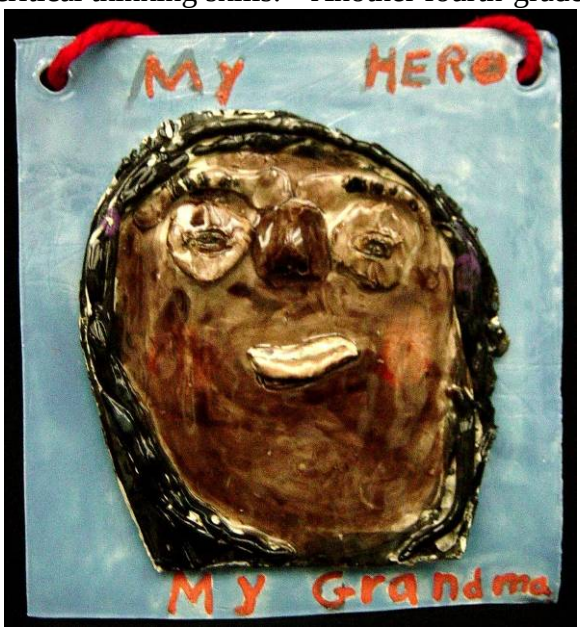
During Year Two, Fienberg-Fisher's Assistant Principal remarked during an interview that Artful Citizenship fits well with the mission of the school, which serves so many disadvantaged children. She observed that the project "provides a wonderful exposure to art but also empowers students to have opinions" and that "art appreciation filters through all other areas of the curriculum." She was also impressed by how well students stay on task when participating in the visual literacy activities. She noted that the students seemed excited about the Artful Citizenship curriculum and enjoyed the museum trips.

Emphasizing the pressures of the FCAT, especially on third-grade teachers, the Assistant Principal said that she believed Artful Citizenship could help increase FCAT scores because it "teaches critical thinking directly." She also believed that "there needs to be more emphasis in the arts in school, but there is not enough time. We need to make it a "priority – a set time every Friday. This makes the learning experience more fun."

Regarding incentives to for teacher participation, the Assistant Principal commented that the schools should encourage the Artful Citizenship training. "The museum setting is wonderful and teachers are provided with substitutes so they can attend. The training has been worthwhile because it gives teachers the tools to impart something to new students."

Visual Thinking Strategies *(VTS)*

Teachers were asked about their experience with the *Visual Thinking Strategies*© component and its central role in the project's methodology. A third-grade teacher noted how quickly her students catch on to the method. Even more impressive, she added, is "how they build on the ideas of their lassmates to come up with better explanations of what's going on in the picture." A fourth-grade teacher remarked that "with VTS©, students quickly become more observant and able to give detailed descriptions about the images. It's a wonderful way for kids to learn how to express themselves and build their critical thinking skills." Another fourth-grade teacher focused her praise of the visual literacy discussion on its value for students new to English: "I think VTS© helps these kids to speak up in class for the first time. The fact that there is no right or wrong answer helps them enormously."



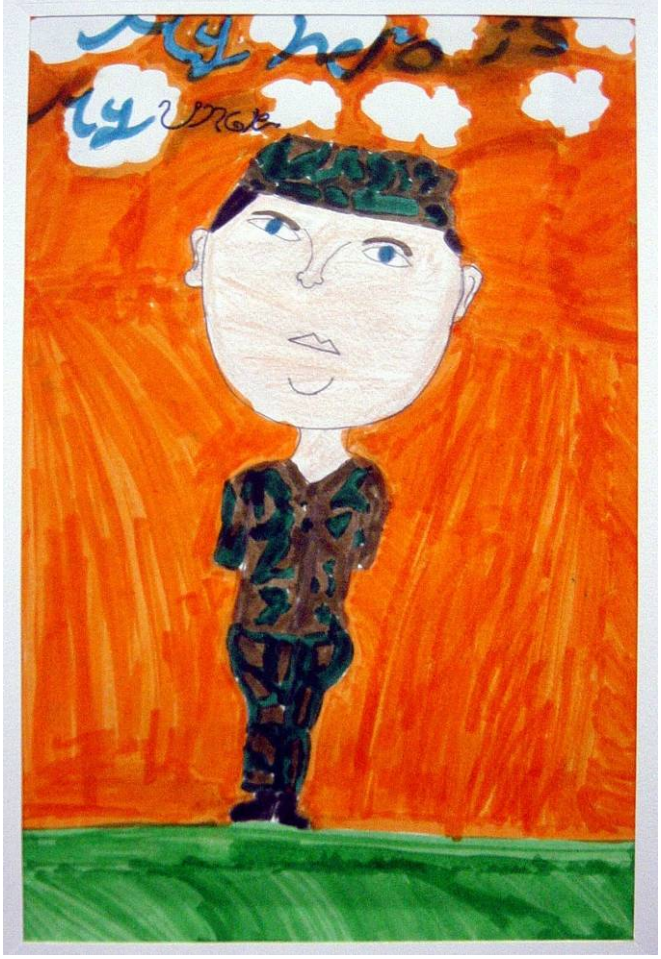
While all teachers interviewed praised the visual literacy method, a fourth-grade teacher nonetheless expressed a practical concern about its use. "I'm not sure if I would spend so much time on straight VTS©. For me, it's better to use it and then jump right into the Social Studies curriculum." A fifth-grade teacher said that sometimes she felt frustrated with VTS© because it did not allow her to capitalize on some of the "teaching moments" that arise during the discussion process. "The kids come up with such interesting ideas in VTS© and sometimes I want to use those ideas to make an important point. But then I catch myself and get back to facilitating."

The Artful Citizenship Curriculum

Teachers were unanimous in their praise for the Artful Citizenship curriculum, noting that that it had improved each year of the project. They were also pleased that their feedback was taken into account from the beginning. When asked which curriculum activities they thought worked particularly well, they mentioned the travelogues, the construction of dioramas, drawing activities, and the researching of community events or traditions. Three teachers commented that students were most excited about the hands-on activities, and that art teachers should be involved more than the current one hour per

week. The only difficulty with the curriculum they cited was a chronic shortage of time to do justice to some of the longer lessons.

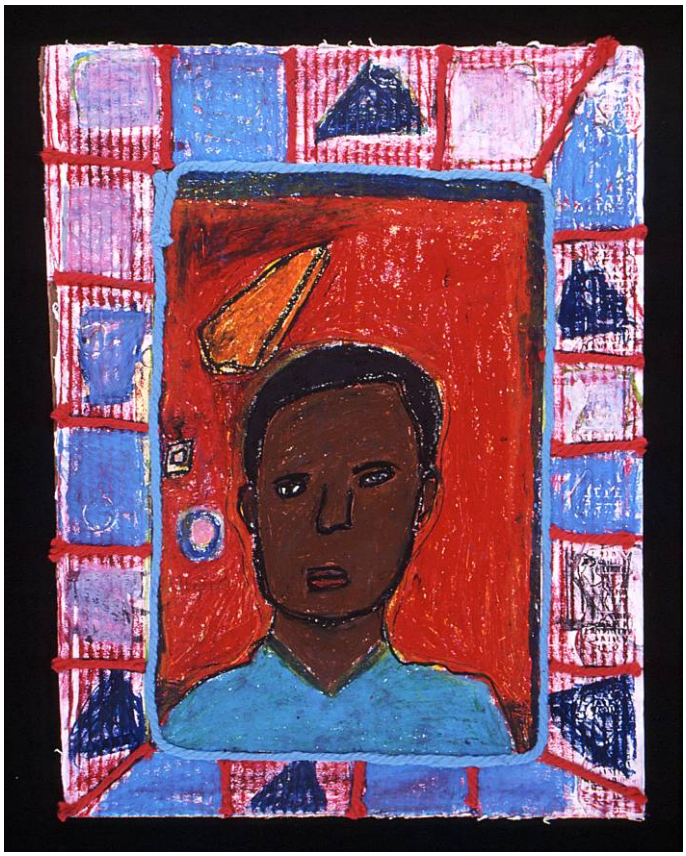
A slightly different perspective on the curriculum was offered by two art teachers, one at Fienberg-Fisher Elementary and the other at Phyllis Ruth Miller Elementary. They considered the curriculum to be pedagogically sound and appealing to students. "I'm very impressed with the curriculum overall, said one of the teachers. It just needs a little fine tuning in certain areas." She added that the program "works very well if the classroom teachers do their job so the kids have a solid base to work from when they get to me." She complimented teachers for preparing students well in the First Leg of the curriculum ("Who Am I?") up to the "Symbol Quest" activity. But she could see that teachers had not prepared students as well for the Second Leg (What is a Community?), and she gave as an example that students had not completed their assigned interviews with an adult who works at the school. She speculated that the problem was partly due to time pressures on teachers, and she recommended that they start sooner next time.



Most teachers noted the "good citizenship" effects of the curriculum on their students. One teacher emphasized the importance of the VTS© process in this regard. "Students quickly learn respect and tolerance because it's built into every aspect of the curriculum, starting with VTS©." method." Other teachers pointed to specific curriculum content such as the lessons dealing with students' family histories and the cultural traditions of their communities. One teacher related how her students were surprised and excited to find that they shared family histories of immigration to the United States with classmates. "One day we were talking about the "Journey to America" example in our travelogue and suddenly the Haitian kids realized that their stories about coming to America were similar to the Hispanic kids' stories and vice versa," explained a teacher at Miami Gardens Elementary.

The Challenge of Time Pressures

All teachers were asked about their biggest challenges in implementing and using the Artful Citizenship curriculum. The response to this question was the same for all teachers: insufficient time that caused their delivery of the curriculum to be less effective than it could have been. They insisted that even without Artful Citizenship, they would still be under extraordinary pressure, every day of the school year, to do all that is asked of them. Adding additional tasks to an already full schedule can cause stress and lead to less than optimum performance by teachers, even when they fully support the project. One of the interviewees stated that "some of our teachers are hesitant to take on projects like Artful Citizenship because they simply can't give them the time they deserve. Lack of time is my biggest challenge."



Their responses to a question about how they coped with time pressure and additional work associated with the project ranged from "I don't complain; I just do the best I can." to "I work it in when I can, but sometimes I have to do it fast." One teacher was particularly frank about the issue: "I try to cram it in but sometimes I have to cut it short, which isn't always so bad because sometimes the kids want to go on for too long. If an activity isn't going anywhere, I cut it off and move on." Another teacher's solution was to adapt the writing part of the Artful Citizenship curriculum so she can do it during the writing time. "Social Studies is supposed to be integrated with reading and writing, so that's what I do. Of course, I have the same kids all day, unlike at other schools, so I can be more flexible. I can't imagine how they manage to fit it in."

Another factor contributing to time pressure on teachers at Fienberg-Fisher is the growing emphasis the school places on standardized test scores. Teachers remarked that they were under increased pressure during the 2004-2005 school years to improve their students' performance on the FCAT test, which takes time away from their regular teaching activities. One teacher commented that "when teachers are already stressed for

time as we are at Fienberg, the constant push for higher FCAT scores affects the way we see programs like Artful Citizenship." When teachers were asked to suggest ways to address the time issue, they responded by saying that some of the problems would improve by scheduling Artful Citizenship either earlier in the school year or waiting until after FCAT is over in March. In this way they would be under less pressure from school administrators to raise students' FCAT scores and have more time to concentrate on the Artful Citizenship curriculum. Students would also be under less FCAT pressure and thus more responsive to the project's curriculum. Roughly half of the teachers interviewed favored starting Artful Citizenship early in the school year, possibly as early as August. One teacher contended that "starting off with Artful Citizenship would be a great way to set a positive tone for the rest of the year." Another argued for a late start for the project, noting that "things calm down a lot after FCAT is over."

Findings from the Site Visit Implementation Study

- **Learning visual literacy led to the development of students' critical thinking skills.**

  Students in the Artful Citizenship classrooms demonstrated critical thinking skills through their use of evidential reasoning – the ability to provide logical and factual support to their statements. Using the VTS© method, students quickly learned to support their assertions with evidence, frequently using "because" statements in their responses.

  Critical thinking skills were not limited to art and social studies. Teachers and administrators told the evaluators that Artful Citizenship filtered through to other areas of the curriculum including language arts, mathematics, and writing.

  The curriculum fostered collaboration among students by facilitating a process of building on the ideas of others. Students readily adopted the logic and language of the visual literacy method, with its emphasis on linking and synthesizing student ideas.

- **The curriculum promoted good citizenship skills, cooperation, respect, and tolerance for the views of others.**

  The visual literacy portion of the curriculum encouraged participation by all students, regardless of cultural background or language ability. Students felt free to express themselves without fear of being judged right or wrong. The consistent observation across classrooms, grade levels and schools was a healthy exchange of ideas and respect for the opinions of others. The Artful Citizenship social studies curriculum, with its explicit focus on the positive aspects of family, community and culture, complemented and built upon this result.

- **The curriculum was effective with Limited English Proficient students.**

  Teachers and administrators commented that the Artful Citizenship curriculum seems well-suited to students new to English, helping to improve their vocabulary and writing skills. Students with limited English felt more comfortable in the Artful Citizenship setting, with its emphasis on respecting the ideas of other students.

- **Teachers found Artful Citizenship curriculum materials to be effective, easy to use, and developmentally appropriate for their students.**

  While using an art-based approach was new for most classroom teachers, they were impressed by the results they saw in their students. The curriculum offered them sufficient flexibility to select materials that were relevant to their particular settings

and student needs. Teachers reported that the following curriculum activities worked exceptionally well: keeping travelogues, constructing dioramas, and researching of community events or traditions.

- **All teachers were under extreme time pressure simply to stay up with the required general curriculum. As a result, implementation of the social studies component of the curriculum was uneven across schools and classrooms within each school.**

  Teachers found that insufficient time to deliver the curriculum was the biggest challenge in the implementation of the project. Other teachers had trouble properly spacing and sequencing the lessons. More importantly, another contributing factor on teachers at the participating schools has been the increased pressure to improve school and student performance on the FCAT.

- **Continuous feedback in the evaluation process worked to improve all aspects of the Artful Citizenship curriculum, training, and instruction.**

  Artful Citizenship was a work-in-progress over the course of the project. Curriculum changes were influenced by teachers' feedback to project staff. Training in VTS© techniques, project meetings, and on-site technical assistance were refined over three years. Project staff, teachers and evaluators developed open channels of communication – each group was influenced by the others.

Conclusions and Discussion

The Artful Citizenship curriculum is remarkable in many ways. The vision of the program is that in learning to be more visually literate, students will also improve their critical thinking abilities, which will, in turn, lead to a wide array of improved outcomes: achievement in other subject areas, self-confidence and self-esteem, respect for the opinions of others, and a stronger understanding of community and culture.

From a museum education point of view, the articulation of the curriculum with the holdings of this particular museum, The Wolfsonian, is also noteworthy. With its emphasis on political, industrial and propaganda art, an art-based social studies curriculum was a perfect match. Other museums who are considering developing similar curricula would do well to choose a subject that uniquely draws on their own holdings, not to try to use material that is difficult to integrate into the curricular goals.

The inclusion of museum holdings in the curriculum not only contributed to the materials themselves, but also served to animate the art for the students, to allow students to construct their own relationship with the art – not to see exhibits as apart from themselves, to break down the distance between themselves and the work. The students' visits to The Wolfsonian took on special meaning because of the interweaving of the curriculum and the art. One expects that they will extend the skills of constructing (and deconstructing) meaning in art to understanding their own complex visual world.

The association between growth in visual literacy and growth in reading and mathematics achievement, as measured on Florida's high-stakes standardized tests, is an exciting finding in many ways. It is a vindication of the claims of many art educators that critical thinking learned in art classes extends to other subject areas as well.

It was surprising that the association between visual literacy and reading and mathematics achievement was obtained only in the treatment schools, the three schools that received the Artful Citizenship program. One would not anticipate this finding. Rather, one would expect that a student who progressed in visual literacy in the comparison school would enjoy the same achievement gains as well. What this anomalous finding suggests is that it is not the level of visual literacy on an assessment instrument that matters, but instead it is the process of learning visual literacy through Visual Thinking Strategies© that made the difference.

In other words, perhaps of equal importance as the artistic dimension are the methods in VTS© that encourage the use of evidence in argument, the attention to the opinions of others, and the respect and interest in other cultures that offer different contributions to the social environment. It is not just <u>being</u> visually literate, it is <u>becoming</u> visually literate in a particular way that encourages the critical thinking that was clearly observed in the site visits, and was measured in the standardized achievement tests. As Housen and Yenawine explain it,

> Over time, students grow from casual, random, idiosyncratic viewers to thorough, probing, reflective interpreters….They are first encouraged to find meaning based on past experiences (legitimizing what they know), and to become grounded storytellers….The process first depends on group interaction and works toward individual problem solving motivated by personal interests. As students develop their connection to art, they exercise a wide variety of cognitive skills that are useful in many contexts. Indeed, in all locations where VTS© has been tested, both classroom and test performance has been seen to improve, and the effect in all cases has been attributable to VTS©. (VUE Web site: http://www.vue.org)

It was disappointing not to find a programmatic impact on psychosocial variables such as art self-concept, academic self-concept, school orientation, and others. The measurement of these constructs was flawed, lacking both reliability and validity. It will be important in future research to align these outcome variables to the specific curriculum. Measuring student gains in areas that were not explicitly covered in the curriculum is never edifying regarding the effectiveness of the program.

This evaluation study shows that integrating art in the curriculum is not just "Art for art's sake," but clearly contributes to students' critical thinking and measurable academic achievement as well. In fact, it would not be surprising to find that such curricular "enhancements" may be the best test preparation the schools can provide.

Appendices

Appendix A

Artful Citizenship
(Psychosocial Survey)
Student Survey
English and Spanish Versions

35136

ARTFUL CITIZENSHIP

The Wolfsonian -- FIU 9/03

Shade Circles Like This--> ●

Not Like This--> ⊗ ✓

Place ID Label Here

WHAT IF . . .

	GREAT	GOOD	OK	TERRIBLE
Q1 -The teacher has asked each student to come up with an idea for an art project. How good do you think your idea will be?	○	○	○	○
Q2 -Art projects are due today. Everyone's art work is displayed together. The class will discuss your art work next. How do you feel?	○	○	○	○
Q3 -One of your classmates is having trouble with her artwork, and asks your opinion about how to make it better. How good do you think your opinion will be?	○	○	○	○
Q4 -You told the teacher that you like the way your friend used color in a painting. Your teacher asks you why you like it. How good do you think your answer will be?	○	○	○	○

ART AND YOU

	A LOT	A LITTLE	NOT AT ALL
Q5 -Your family is planning to go to the art museum. How much time would you like to spend there?	○	○	○
Q6 -Your school has an art club that meets after school. Members of the club have more time to work on art projects. How much do you feel like joining the art club?	○	○	○
Q7 -How much free time do you spend making art, or reading art books, or doing some other art activity?	○	○	○
Q8 -How much do you enjoy talking with someone about art?	○	○	○

NEXT PAGE

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ARTFUL CITIZENSHIP

The Wolfsonian -- FIU 9/03

YOU AND YOUR SCHOOL WORK. . .

Q9 - When you finish elementary school, do you think you will be one of the <u>better</u> students, about <u>the same</u> as most students, or <u>worse</u> than most students?	○ better ○ the same ○ worse
Q10 - Do you think you can finish high school?	○ yes ○ no ○ maybe
Q11 - Think of the other students in your class. Do you think you can do school work <u>better</u>, <u>the same</u>, or <u>worse</u> than the other students?	○ better ○ the same ○ worse
Q12 - If you want to be a doctor or a teacher, you need more than 4 years of college. Do you think you can do that?	○ yes ○ no ○ maybe
Q13 - What grades do you think you can get if you really try?	○ A's and B's ○ B's and C's ○ D's and F's

YOU AND YOUR SCHOOL . . .

	THAT IS ME	MAYBE THAT IS ME	THAT IS NOT ME
Q14 - I like to help other people	○	○	○
Q15 - I don't know very many kids in school.	○	○	○
Q16 - I feel like this is "my school."	○	○	○
Q17 - I like hearing 'news' about other kids in school	○	○	○
Q18- People don't pay attention to me at school.	○	○	○

Did you complete Page 1?

YOU AND YOUR FRIENDS . . .

	ALWAYS	SOMETIMES	NEVER
Q19 - I get along with the kids in my class...	○	○	○
Q20 - I am afraid to try new things...	○	○	○
Q21 - I treat other people the way I want to be treated...	○	○	○
Q22 - I worry about school...	○	○	○
Q23 - I am a good friend to other kids.	○	○	○

63726

ARTFUL CITIZENSHIP

The Wolfsonian -- FIU 9/03

Shade Circles Like This--> ●

Not Like This--> ⊗ ✓

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¿QUE TAL SI . . .

	Excelente	Buena	Más ó Menos	Mala
Q1 -La maestra ha pedido que cada estudiante piense en una idea para un projecto de arte. ¿ Qué tan buena crees que será tu idea?	○	○	○	○
Q2 -Los projectos de arte se entregan hoy. Los projectos de todos se muestran juntos. Tu projecto es el siguente y la clase lo va a discutir. ¿Cómo te sientes?	○	○	○	○
Q3 -Uno de tus compañeros está teniendo problemas con su projecto de arte y te pregunta tu opinión de como mejorario. ¿Qué tan buena crees que será tu idea?	○	○	○	○
Q4 -Le dijiste a tu maestra que te gusta la manera en que tu amigo/a uso color en su dibujo. Tu maestra te pregunta porque te gusta. ¿Qué tan buena crees que será tu respuesta?	○	○	○	○

EL ARTE Y TÚ

	Mucho	Muy Poco	Para Nada
Q5 -Tu famila está planeando ir al museo de arte. ¿Cuánto tiempo te gustaria pasar alli?	○	○	○
Q6 -Tu escuela tiene un club de arte que se junta después de la escuela. Miembros del club tienen más tiempo para trabajar en projectos de arte. ¿Qué tanto te gustaria estar en el club?	○	○	○
Q7 -¿Qué tanto tiempo libre pasas haciendo arte, ó leyendo libros de arte, ó haciendo alguna otra actividad artistica?	○	○	○
Q8 -¿Qué tanto te gusta hablar con alguien acerca de arte?	○	○	○

NEXT PAGE

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ARTFUL CITIZENSHIP

The Wolfsonian -- FIU 9/03

TÚ Y TU TRABAJO ESCOLAR . . .

Q9 - ¿Cuándo termines la escuela primaria, crees que serás uno de los <u>mejores</u> estudiantes, <u>igual</u> como los demas estudiantes, ó <u>peor</u> que los otros estudiantes?	○ Mejor ○ Igual ○ Peor
Q10 - ¿Crees que terminaras 'high school'?	○ Si ○ no ○ Tal vez
Q11 - Piensa en los otros estudiantes de tu clase. ¿Crees que tu trabajo escolar es mejor, igual, ó peor que el de los otros estudiantes?	○ Mejor ○ Igual ○ Peor
Q12 - Si tu quieres ser un doctor ó una maestra necesitas más de 4 años de estudios universitarios. ¿Crees que puedes hacer eso?	○ Si ○ no ○ Tal vez
Q13 - ¿Qué calificaciones crees que podrias obtener si deberas trataras?	○ A's y B's ○ B's y C's ○ D's y F's

TÚ Y TU ESCUELA

	Ese Soy Yo	Tal Vez Ese Soy Yo	Ese No Soy Yo
Q14 - Me gusta ayudar a otra gente.	○	○	○
Q15 - No conozco a muchos niños en mi escuela	○	○	○
Q16 - Siento que ésta es "mi escuela."	○	○	○
Q17 - Me gusta escuchar "noticias" de otros niños en la escuela.	○	○	○
Q18- La gente no me presta atención en mi escuela.	○	○	○

TÚ Y TUS AMIGOS

	Siempre	A Veces	Nunca
Q19 - Me llevo bien con los niños en mi salon...	○	○	○
Q20 - Me da miedo tratar cosas nuevas...	○	○	○
Q21 -Trato a otra gente de la manera que quiero que me traten...	○	○	○
Q22 - Me preocupo de la escuela...	○	○	○
Q23 - Soy un buen amigo a los otros niños.	○	○	○

Appendix B
Guidelines for Psychosocial Survey Administration

Artful Citizenship
Script
Survey Administration

READ THIS SCRIPT AFTER SURVEYS ARE GIVEN TO STUDENTS.

Hello, my name is _____ and I'm from The Wolfsonian Museum.

Today, we would like you to answer some questions. We are interested in what students your age think and feel about art and school.

*This survey is **NOT** a test. There are NO right or wrong answers. Just give the best answer you can.*

Be sure to fill in the circle completely, and make sure you fill in only one circle for each question.

*I will read to you one question at a time. Then I will give you a minute to fill in the answer. [**Read the categories of responses].***

When you are finished, I will come by to collect the survey. If you have any questions, raise your hand and I will come over to help you.

Ready……

*Question 1……[**Read Q1**]*

Question 23 ……..

Thank you very much. I hope you all have a good summer.

Appendix C
Guidelines for Administering Artful Citizenship Visual Literacy Pre-Surveys and Post-Surveys

Note: This instrument is to be administered twice – once at the beginning of Artful Citizenship program, and once at the end of the program.

Materials:

- One copy of image for each student
- One copy of Visual Literacy Assessment Form for each student

Administration: (*Bold/italicized* text is suggested direction to students)

1. Have children arrange themselves so that each student has sufficient room to examine the visual image and write on the Assessment Form.

2. Explain the activity to students (Read the following):

   Today we are going to look at an image and answer some questions about that image. There is no right or wrong answers to these questions. This is not a test. When you're finished, I will collect your papers and put them right into an envelope without reading them. Your answers will help us come up with new ideas for teaching art.

   We are interested in knowing what each one of you sees in the image and what you think about it. Please work individually on these – not in groups.

3. Distribute answer packets to all students and assist them in completing identifying information at the top of page 1.

4. Ask students to set answer packets aside and explain:

   Now I'm going to give everyone a copy of an image. I want you to look at your image for a couple of minutes.

5. Distribute the images.

6. ***I'm going to give everyone 1- 2 minutes just to look at the image. I want you to think about what is going on in the picture and what makes you think that.***

7. ***Now, let's answer question 1***
   "What's going on in this picture?"
   "What do you see that makes you say that?"

   Write down what you think is happening in the picture, and don't worry about spelling. I'm going to give you a few minutes to answer. (allow 5-15 minutes)

8. ***Now, let's answer question 2:***
   "What more can you find?"

   In other words, what do you think the point of the picture is?
   I'll give you another 5-10 minutes to answer this question.

Collect the papers, place them in the envelope provided, and return to Wolfsonian.

Appendix D
ARTFUL CITIZENSHIP
VISUAL LITERACY ASSESSMENT

DIRECTIONS: WRITE ANSWERS IN THE BLANK SPACES.
USE THE BACK OF THE SHEET IF NEEDED.

1. What's going on in this picture?
   What do you see that makes you say that?

2. "What more can you find?"

Appendix E

Scoring Sheet for Artful Citizenship Papers

StickerID	Scorer 1	Scorer 2	Total	StickerID
1				1
2				2
3				3
4				4
5				5
6				6
7				7
8				8
9				9
10				10
11				11
12				12
13				13
14				14
15				15
16				16
17				17
18				18
19				19
20				20
21				21
22				22
23				23
24				24
25				25
26				26
27				27
28				28
29				29
30				30
31				31
32				32

Appendix F

Images for Visual/Critical Literacy Assessment

Painting, *Fire in the Barn*, c. 1939

Lue Osborne (American, 1889–1968)

Vinylite on canvas

48 x 48 inches (121.9 x 121.9 centimeters)

The Wolfsonian–Florida International University, Miami Beach, Florida,
The Mitchell Wolfson, Jr. Collection

XX1989.45

Painting, *The City*, 1936

Virginia Berresford (American, 1904–1995)
New York, New York
Oil on canvas
30 1/2 x 48 1/2 inches (77.5 x 123.2 centimeters)
The Wolfsonian–Florida International University, Miami Beach, Florida,
The Mitchell Wolfson, Jr. Collection
TD1988.137.1
Photo: Peter Harholdt

Painting, *Subway*, c. 1935

Daniel Ralph Celentano (American, 1902–80)
New York
Oil on canvas
25 ¾ x 27 ¾ x 1 3/8 inches (65.4 x 70.5 x 3.5 centimeters)
The Wolfsonian–Florida International University, Miami Beach, Florida,
The Mitchell Wolfson, Jr. Collection
TD1991.133.3
Photo: Silvia Ros

Painting, *Agro Pontino Redento*, 1940

A. F. Leonardi (Nationality and dates unknown)

Italy

Oil on canvas

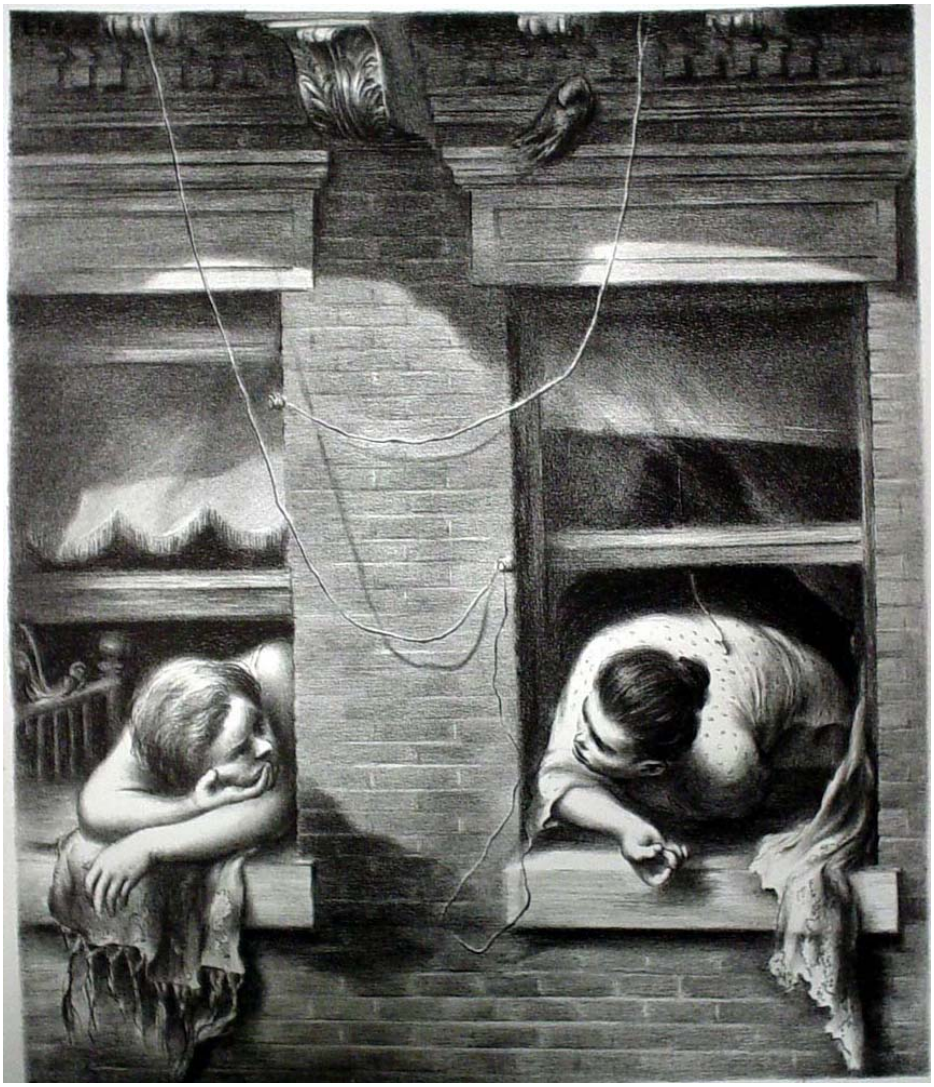
39-1/2 x 59 inches (100.3 x 149.9 centimeters)

The Wolfsonian–Florida International University, Miami Beach, Florida,
The Mitchell Wolfson, Jr. Collection

XX1989.91

Mural study, John Brown, c. 1930-39

Possibly for the War Department Building, Washington, DC (unknown if realized)
Stuyvesant Van Veen (American, 1910-88)
United States
Tempera on paper mounted to board
24 x 16 1/4 inches (61.0 x 41.3 centimeters)
The Wolfsonian-Florida International University, Miami Beach, Florida,
The Mitchell Wolfson, Jr. Collection
XX1989.96



Print, Gossips, c. 1938

Lawrence Beall Smith (American, 1909-89)
New York
Lithograph
16 1/8 x 12 inches (41.0 x 30.5 centimeters)
The Wolfsonian-Florida International University, Miami Beach, Florida,
The Mitchell Wolfson, Jr. Collection
86.4.121

Appendix G

Artful Citizenship
Site Visit Protocol

The Artful Citizenship Project
Protocol for Project Site-Visits
Year Three

I. Description of the program

[This would be basic "homework" before the site visit. It would entail familiarizing the researchers with the design of the particular program being visited.]

II. Description of the project site (These are based on observation)

Teacher:_____

School:_____

Visit Date: _____ Time: _____

Number of students: _____ 3th grade _____ 4th grade _____ 5th grade

Class type: _____regular class___art_____ gifted_____ academically advanced

Q1. Describe the materials and their relationship to the lesson being taught.
Which components of the Artful Citizenship Package are being used?

Q2. What materials are available?

Q3. How are the materials being used?

Q4. What technology is available to the teacher?

Q5. What technology is available to the students?

Q6. How do they contribute to the lesson objectives?

Q7. Describe the teacher's lesson presentation.
How familiar does the teacher appear to be with the lesson?

Q8. How did the teacher prepare the lesson?

Q9. Did the teacher deliver the lesson with enthusiasm?

Q10. Did the teacher provide sufficient detail to students?

Q11. Describe the teacher's communication style.

Q12. Describe the students
What is the gender, social class, racial, exceptionality, composition?

Q13. Describe the learning environment
Is the culture of the classroom casual, formal, etc.?

Q14. Group work vs. individual work?

Q15. How effective is the instruction?

Q16. Are the students' products consistent with the goals of the lesson?

Q17. What are the apparent benefits of Artful Citizenship to the students?

Q18. Do the students appear to like Artful Citizenship?

III. Interview with Teacher

Q19. What challenges did you encounter implementing and using the Artful Citizenship activities and materials?

Q20. Which topics and/or activities did your students enjoy or relate to the most?

Q21. Which topics and/or activities did your students enjoy the least?

Q22. What suggestions do you have for improving the Artful Citizenship Program?

Q23. What suggestions do you have for improving the delivery of the program?

Q24. How visible is the program in the school at large?

Q25. Is there support from administration, collaboration with other departments or organizations, parents, or other dimensions of school and community involvement?

Q26. Did you receive enough support from The Wolfsonian to effectively implement the program?

Q27. Did you have access to enough resources to teach the Artful Citizenship curriculum?

Q28. What information did you use?

Q29. Where did you get the information?

Q30. What contributed to the success of the Artful Citizenship program in your class?

Q31. Describe a situation where Artful Citizenship made a real difference for a child or a group of children?

IV. Interview with Students (if permissible)

Q32. Describe something you saw or learned that was really important in your class (or whatever class Artful Citizenship is taught in).

Q33. Why was it "important"?

Q34. Did you like Artful Citizenship?

___ Yes ___No

If No, why not?

Q35. Which lessons did you……..

Like most?

Like least?

Q36. Would you like to be in Artful Citizenship again next year?

___ Yes ___No

If No, why not?

V. Interview with Site Administrator (school administrator, principal, etc.)

Met with: name _____

title _____

Q37. Do you know about the Artful Citizenship project and goals?
Yes ___ No ____

Q38. Does the program fit into the school's mission? ___Yes ___No
In what ways?

Q39. What additional resources have been contributed by the school or community (monetary, material, other – e.g., supportive scheduling, promotion school-wide, release time for teacher, pro bono services, etc.)?

Q40. COMMENTS/SUGGESTIONS:

Appendix H

Artful Citizenship
Visual/Critical Literacy Scoring Rubric

Artful Citizenship Visual/Critical Literacy Scoring Rubric

	6 Sophisticated	5 Accomplished	4 Proficient	3 Literal	2 Developing	1 Limited
Description	-Includes rich description of visual elements -Describes a conflict or problem	-Describes visual elements in detail -May identify social, personal, or political conflicts	-Describes identified visual elements -May name a conflict or a problem	-Describes particular elements -May label visual traits (such as shape, symbols, structural details)	-Identifies two or more elements -May randomly list elements	-Blank or illegible -Lacks detail -May be off topic -may be inaccurate
Animation	-Connects animation to a more complex scenario	- Makes inferences about features of animation	-May ascribe complex actions, i.e. emotion or thought	-Attributes actions to characters	-May attribute some actions to characters	-Provides little or no evidence
Analysis	-Demonstrates understanding of the whole by relating elements in cultural or historical context	-Demonstrates understanding of the whole by relating some elements	-Relates some elements of the image to each other -May discuss context	-Relates some elements of the image to each other -Often answers questions on prompt	-Provides little or no evidence	-Provides little or no evidence
Interpretation	-Connects visual elements to artist's intent -May connect content to cultural values -May design solutions or evaluate success of work	-Connects some visual elements to artist's intent -May evaluate the art/artifact -Relates tangential information to task	-may connect visual elements to artist's intent -May be incorrect reading (may include tangential information or opinions)	-Provides little or no evidence -May be incorrect reading	-Provides little or no evidence -If present, may be incorrect reading -May give opinion, but lacks support	-Provides little or no evidence

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