



Selected Findings from a Longitudinal Study of Partnering Arts, Communities, & Education (PACE): 2015-2018

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The Partnering Arts, Communities, & Education (PACE) program was established by the Indiana Arts Commission (IAC) in 2014 for the purpose of establishing long-term, in-depth, and sustainable partnerships between elementary schools with high poverty/low performing populations and arts organizations to impact student growth and achievement through extended arts and literacy experiences. PACE arts experiences occur as part of the academic day, at frequent and regular intervals throughout the entire school year, and align with the school's planned academic curriculum. Arts educators and teaching artists collaborated to plan and provide instruction in the arts and to conduct ongoing assessments of student learning in the arts.

Summary

Findings from all assessments used in the PACE program over the course of this three-year study, revealed positive growth on each of the assessments. Students' arts skills improved the most with an increase of 29%, while the least improvement was produced in students' general arts knowledge and interest with an improvement of 3%. Other improvements included 22% in student writing skills, 19% in knowledge and vocabulary, and 14% in students' attitudes during arts activities. The combined aggregated averages from all PACE assessments produced a 17% improvement from fall to spring assessments over the course of the study. **Variations in these findings existed among disciplines, schools, and grade levels; however, all disciplines and schools produced growth and experienced positive improvement with regard to students' learning in the arts while participating in the PACE program.**

The PACE program has provided glimpses of what a focused quality education in the arts could provide for learners over time. It also includes illustrations of the benefits collaborations between teaching artists and arts educators can produce in student learning in the arts. **Findings from the three-year study of the impact the PACE program is having on students' learning demonstrated clear growth and a positive impact on the overall development of the arts education and attitudes of young people involved in the program.** Although the levels of growth were modest in some cases, nonetheless, they were consistently positive and suggest that the PACE program is moving toward accomplishing its goals and the vision created for the program. Comparisons of findings from the study, thus far, provide an emerging and intriguing portrait of how the PACE program is providing consistent growth and advancement of students' knowledge, skills, and attitudes in the arts. Based on findings from the study, the PACE program holds unlimited potential for improving the arts literacy of those who experience arts education through it.



About the Research

This is a summary of selected findings from an IAC funded study of the impact of its PACE program on student learning in art, dance, and theatre. Research topics of the study included: (1.) students' general knowledge of and interest in the arts, (2.) students' arts discipline-specific knowledge and vocabulary, (3.) students' arts skills, (4.) students' writing about the arts; and (5.) students' general attitudes about the arts. A full report and executive summary of findings has been issued by the IAC and they are available publicly on the [IAC website](#).

Research Methodology

Research methodology included surveys from the fall of 2015 through the spring of 2018 academic years of stratified samples of 1,397 elementary students from first grade through fifth grade. The PACE program included six elementary schools representing urban, suburban, and rural school districts from across Indiana. Arts disciplines in the study, including art, dance, and theater, were represented by two schools each. Survey instruments were developed for each of the research topics in the study. Assessments were conducted in the fall (pre-test) and spring (post-test) of each academic year. Instruments included Likert-style, forced choice, and open-ended items. Rubrics were provided to participating arts educators and teaching artists for evaluating students' responses. Data were aggregated by class, grade level, school, and arts discipline. Descriptive statistics were used to analyze data and to summarize findings.

Participants

Makeup of the 1,397 students in the PACE program included: 333 students who participated during 2015-2016 academic year, 584 students in 2016-2017, and 480 students in 2017-2018. Of these 497 or 36% studied dance, 483 or 35% studied theatre, and 417 or 30% studied visual arts.

1. Students Learned and Retained Arts Skills and Knowledge

Pre-test to post-test scores on all General Knowledge of the Arts and Interest in the Arts Assessment items produced improvements for all three items on the assessment. A total of 1,373 students completed this assessment. The aggregated average for all items and all disciplines rose by 3% during the three-year period of the study. This assessment included three Likert-style items. Item 1, “I like to make (art, dance, act like someone or something else.” produced the largest increase of 6%. Responses for all items on this assessment showed growth when measured over time, although increases varied by school and arts discipline.

Arts Skills

PACE students’ discipline-specific skills were assessed. A total of 1,375 students were assessed. The instrument included three items that were phrased with non-discipline-specific language for use in all six PACE schools. An additional three discipline-specific student skills were identified by each participating school for a total of six items on the assessment. The aggregated average for the first three non-discipline-specific knowledge items increased by 18% over the three-year period of the study. Item 3, “Understanding and application of the sequence or process for creating an activity or work in the arts discipline.” produced the largest increase of 21% during the study.

Student discipline-specific skills measured with the remaining three items on this instrument produced an increase of 26% over the three-year period of the study.

The pre-test to post-test aggregated scores for all items and all disciplines on the PACE Student Skills Assessment rose by 29% during the three-year period of the study. Responses for all items on this assessment showed growth when measured over time, although increases varied by school and arts discipline.

Arts Knowledge and Vocabulary

PACE students’ discipline-specific knowledge and understanding of discipline-specific vocabulary was assessed. A total of 1,359 students completed this assessment. The instrument included three items that were phrased with non-discipline-specific language for use in all six PACE schools. An additional five discipline-specific vocabulary terms were identified by each participating school for a total of eight items on the assessment. The aggregated average for the first three non-discipline-specific knowledge items increased by 10% over the three-year period of the study. Item 3: “Do people (make art, dance, act) just for enjoyment, or can (making art, dancing, acting) also be a job to earn money?” produced the largest increase of 35%.

A total of 127 discipline-specific vocabulary terms were identified by PACE schools. The aggregated average for the five discipline-specific items rose by 21% over the three-year period of the study.

The pre-test to post-test scores for all items and all disciplines on the PACE Knowledge and Vocabulary Assessment rose by 19% during the three-year period of the study. Responses for all items on this assessment showed growth when measured over time, although increases varied by school and arts discipline.

2. Students Showed Improved Writing Skills

PACE students' writing about their arts education experiences was assessed using discipline-specific writing prompts provided by the IAC, teaching artists, and arts educators. A total of 1,369 students completed this assessment. This assessment, PACE Student Writing Sample Assessment, included a rubric with three broad categories for evaluating students' writing samples. The first category, Ideas and Content, included three criteria: Utilizes arts vocabulary; Demonstrates understanding of arts activity; and Includes creative, unique, and/or new thoughts and ideas. The second category, Organization, included two criteria: Expresses ideas in complete sentences; and Has beginning, middle, and end. The third category, Writing Conventions, included a single criterion: Applies proper grammar, punctuation, spelling, and capitalization. Of all six items, Item 1, Utilizes arts vocabulary," and Item 3, "Includes creative, unique, and or new thoughts and ideas.", produced the largest increases from fall to spring assessments with increases of 25% each over the three-year period of the study.

The pre-test to post-test aggregated scores for all items and all disciplines on the PACE Student Writing Sample Assessment rose by 22% during the study. Responses for all items on this assessment showed growth when measured over time, although increases varied by school and arts discipline.

3. Student Attitudes, Self-Esteem, Confidence, and Communication Improved

The attitudes of PACE students about the arts were measured during their involvement with arts learning activities. PACE teaching artists and arts educators rated students' attitudes regarding their engagement, self-esteem or confidence, and communications or interactions with others. This assessment was only conducted for two of the three-years in the study. A total of 730 students' attitudes were rated. All three attitudes produced similar increases over the three-year period for the study with a 14% improvement for engagement, 14% improvement for self-esteem or confidence, and a 13% improvement for communications or interactions with other students during arts activities.

The pre-test to post-test aggregated scores for all items and all disciplines on the PACE Students' Attitudes during Arts Activities Assessment rose by 14% during the three-year period of the study. Responses for all items on this assessment showed growth when measured over time, although increases varied by school and arts discipline.