

STANDARDIZED MEASURES OF SUCCESS: HOW PROJECT SOAR ELEVATES STUDENT ACHIEVEMENT



June 2014

Impact of Project SOAR on NYS ELA and
Math Assessments

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ABSTRACT

Project SOAR is a school based program operated by Cradle Beach, a Western New York organization with a rich history of providing services to children with disabilities and children who come from some of the most impoverished communities in the WNY for over 126 years. Project SOAR provides intensive in-class tutoring, field trips, overnight monthly retreats, mentoring, a residential summer enrichment camping experience, and 6 weeks of summer educational programming. Rarely is a SOAR participant out of contact with SOAR staff for more than 72 hours and the program provides an equivalent of 114 days of extended learning. This white paper examines NYS ELA and Math assessments for Project SOAR students who participated in the program from 2011 to 2013.

METHODOLOGY

Over the course of three years, Project SOAR has expanded about 300% to 220 year-round participants. These students are measured on a number of data points including quarterly grades, overall grades, NYS ELA and Math assessments, attendance, behavior as reported by classroom teachers, and emotional attendance. For the purpose of this analysis, we will examine three years of NYS ELA and Math assessment scores. This academic data point was selected because it is a standardized measure from which comparisons can be made. In addition to these academic measures, we will also triangulate the data with grade point average and attendance rates.

LITERATURE REVIEW

Research indicates that Cradle Beach works. Cradle Beach programs are grounded in multiple disciplines which combine to have an exponential impact. From the field of education, researchers like Winkler, De Vita, Carol, et al., 2010; Afterschool Alliance, 2010; Costley, 2011; Black, Somers, and Doolittle, 2009 have demonstrated the need for engaging environments that ensure a deeper more meaningful experience for youth that not only enhance content learning but also promote the development of deeper level skills recently identified by Academically Adrift: Limited Learning on College Campuses (University of Chicago Press, 2011) and a number of other publications as grossly lacking in American youth. Cradle Beach programming provides opportunities for youth to engage in activities that complement the classroom while simultaneously developing higher level skills like critical thinking, problem solving, complex reasoning, decision making, and data analysis that are nearly impossible to develop solely through today's educational environment. Enhancing this educational framing is the field of social work. For instance, Long and Bos (1998) demonstrate in their research that multiple venue approaches achieve greater results than programs which focus on one

setting and one type of programming. Finally, the world of neuroscience and psychology come together in an in-depth analysis of emotional intelligence and the value of purposeful efforts to develop emotional intelligence in youth, informing programming decisions and outcomes analysis by Cradle Beach (Goleman, 2008; Goleman, Boyatzis, & McKee, 2002; Collins, 2001). This interdisciplinary approach has informed the multi-faceted programs of Cradle Beach, the development of multiple higher level skill sets in students, and the development of this proposal.

Extending our understanding of multi-venue impact and emotional intelligence is the body of research that examines the impact that our environment plays on our personal development. Bonnett (2004) states that the “incomplete learning” that occurs within students can and should be attributed to the “technologizing of education” (pg. 125) that “emphasizes abstract knowledge over social process” (Zandviet, 2012). The literature places a great deal of emphasis on “place-based” learning environments that provide for social processes and enriching environments that result in long-term benefits in children (Zandviet, 2012). For example, when students engage in environmental education, they gain a greater understanding and ability to analyze, conceptualize, hypothesize, problem solve, and develop strategies or solutions to problems (Basile, 2000; Corral-Verdugo and Frais-Armenta, 1996; Cummins and Snively, 2000; Kenney et al., 2003; Lieberman and Hoody, 2000; Lord, 1999). Furthermore, and most critical to today’s society where students are most often labelled, “unmotivated,” place-based learning leads to intrinsic motivation (Basile, 2000; Cummins and Snively, 2000; Kenney et al., 2003; Lord, 1999). Other outcomes to place-based learning is the development of social and collaborative skills (Johnson and Johnson, 2003), cultivation of ideas through meaningful dialogue (Zandviet, 2012), and low and medium performing students that often demonstrate greater leadership characteristics as compared to traditional educational environments (Cummins and Snively, 2000; Kenney et al., 2003). In summary, place-based learning results in an ability within students to view the interconnectivity of the world and environment they occupy (Zandviet, 2007) and will result in the development of attributes that will allow students to effectively generate sustainable solutions to the pressing environmental, social, and economic issues of today (Zandviet, 2012, UNESCO, 2007).

Within place-based learning is the element of inquiry-based learning. This educational practice is a more natural way to learn and process new content, ideas, and concepts while enriching the experience of students and ensuring a more meaningful understanding of what is being examined (Lofgren et al., 2013). However, when inquiry-based learning was implemented in the traditional classroom at the elementary level, the challenges are great and often do not lead to enhancements of academic outcomes (Lofgren et al., 2013). The challenge remains connected to the concept of place-based learning and when combined with inquiry-based learning, expands the development of higher order skill sets required in today’s heuristic or more organic work environments where daily tasks no longer break down into a linear or sequential order (Pink, 2009; Watson, 2002; Bergqvist and Saljo, 1994). Within the research, there is strong evidence that inquiry-based learning results in stronger academic outcomes for students when implemented simultaneously with place-based learning and should be a part of any productive educational environment and experience (Zandviet, 2012; Crawford, 1997; Harlen, 2009; NRC, 2001). Finally, like place-based learning, inquiry-based learning promotes intrinsic motivation and positive attitudes toward subject matter (Brown, 2000; Kubiack, 2005).

In addition to the previous research, there has been an evolving body of literature that examines the impact of programs on emotional intelligence and its influence over academic achievement. Ashdown and Bernard (2012) examined the impact of a program on elementary grade students that purposefully sought to develop emotional intelligence skills and, as a result, increased academic achievement. The Center on the Social Emotional Foundations for Early Learning (CSEFEL) for young children defines “social-emotional development

as developing the capacity...to form close and secure adult relationships; experience, regulate, and express emotions in socially and culturally appropriate ways; and explore the environment and learn” (2008). CASEL (The Collaborative for Academic, Social, and Emotional Learning has outlined five core social and emotional competencies that are “important foundations for young people’s well-being: self-awareness, social awareness, self-management, relationship skills, and responsible decision-making” (Ashdown and Bernard, pg. 397, 2012). As young people develop these skills they too expand their perspectives, develop confidence, expand their ability to develop health adult and peer relationships, resolve conflicts, increase their ability to persevere in the face of adversity, cope well with anger and hurt, and more times than not, successfully manage their emotions (Shonkoff and Philips, 2000; Parlakian, 2003). These findings coincide with a variety of researchers who have conducted extensive studies on the development of emotional intelligence in adults like Goleman, Boyatzis, McKee (2002) and Collins (2001). The contrast in what the overall impact on emotional intelligence ultimately influences is not as great as one would expect given the age differences. Essentially, those who are capable of recognizing their own feelings and managing those feelings are better positioned to recognized other’s feelings and emotions and develop positive relationships based on those recognitions and abilities. Whether young or old, the context in which one develops positive relationships is essentially the same with similar influences over abilities and achievements.

For young children, evidence suggests that when a child successfully developed his or her emotional intelligence, they are more likely to realize positive outcomes on academic success. Research supports that “in conjunction with cognitive competence (reading, writing, and critical thinking skills), social emotional competence (collaboration skills, motivation, and study skills) is an important predictor of academic achievement” (Ashdown and Bernard, pg. 398, 2012; DiPerna and Elliot, 2002). Bernard (2004) explained that students who demonstrated higher levels of emotional intelligence, particularly those who were at-risk, demonstrated greater levels of academic achievement in comparison to those students with low emotional intelligence. These findings have been similarly demonstrated by Payton et. al. 2008; Joseph and Strain 2003). In a meta-analysis examining 34 academic sites, Nelson et al. (2003) “found that, overall, social and emotional learning programs had positive effects on both cognitive and academic outcomes in the short term (pre-school), medium term (primary school) and the long term (high school) (Ashdown and Bernard, pg. 398, 2012). Therefore, and with a significant amount of research backing up the findings, emotional intelligence (social emotional learning) has a long-term positive influence over academic achievement.

FINDINGS

The findings of this study clearly demonstrate a positive impact on the participants of the Project SOAR implemented by Cradle Beach.

Key findings emerged from the study:

1. In examining academic performance, it is critical to ensure that you compare apples to apples. Therefore, state assessment scores were selected to compare Project SOAR students against control groups and comparison groups.
2. In comparison to the control group in 2011 and 2012, Project SOAR students out performed control group students on both the ELA and Math NYS assessments
3. In addition to outscoring control group students, Project SOAR students had a higher proportion scoring at the proficient level (3 or 4) than the control group for both 2011 and 2012.
4. In 2013, where it was not possible to run a control group, in comparison to the “average” Buffalo Public Schools (BPS) student, Project SOAR students earned higher scale scores than the “average” BPS students on the ELA and Math NYS assessments in grades 3 through 6.

5. Also in 2013, Project SOAR students had a higher proportion scoring at the proficient level (3 or 4) than the average BPS student.
6. In order to better understand the above findings, this analysis triangulated ELA and Math scores on the NYS assessments with absenteeism rates and average GPA.
 - a. On average, Project SOAR students attend school 2.5 weeks more than the control group (2011 & 2012) and “average” BPS students (2013), spending 12.5 more days in school.
 - b. On average, Project SOAR students outperformed the control group (2011 & 2012) and “average” BPS students (2013) across all academic subjects, marking periods, and overall grade point average.

DISCUSSION

When analyzing innovative educational programming that offers multi-venue, multi-faceted experiences, it is critical to, when possible, compare to control groups and to use a standardized measure. Secondly, it is beneficial to use other data points to validate key findings and to further support conclusions. With Project SOAR, Cradle Beach and its staff provide several services that support not only the academic but the social/emotional development of students. Previous research on Cradle Beach programs found a positive influence over the development of emotional intelligence for those individuals who entered the program with low to medium levels of emotional intelligence. This is supported by research that articulates, through teacher surveys, that behavior of Project SOAR students improves over the course of the academic year. When combining these facts, the reader is better positioned to understand the significant impact that Project SOAR has on the “whole” child and not just the academics. This study analyzed the impact of Project SOAR on students’ academic achievement by examining their NYS assessment scores on ELA and Math. In all cases, Project SOAR students outperformed the control group (2011 & 2012) and the comparison group (2013). This evidence, when triangulated with quarterly GPA and overall GPA as well as attendance rates, further supports the strong benefit of the program to student participants.

CONCLUSION

As a nation, we clearly struggle to provide various sectors of our citizenry and in particular, our urban children educational opportunities on par with the very best educational institutions in the country. What Project SOAR accomplishes is an equalizer for urban students in order to enhance educational and social/emotional opportunities for these children with results to back it up.

Project SOAR is a longitudinal program with longitudinal results. In today’s American urban districts, achievement declines over time. This is not the case with Project SOAR. In fact, trend analysis demonstrates that by the third year of the program, academic achievement increases over the course of the school year. Results are congruent along multiple data points and clearly indicate that Project SOAR enhances academic achievement and gains are sustained if not improved over time. Clearly Project SOAR students benefit greatly from their participation in Project SOAR.

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