

# Experiential Education in Boston's Pilot Schools: A Three-Year Demonstration Project



## Executive Summary

The Pilot Schools Experiential Education Demonstration (PSEED) project was a three-year initiative, begun in the fall of 2005, conducted in seven Boston Public Schools (BPS) and supported by the Barr Foundation. While these schools had a common goal of embedding experiential education more deeply into their schools' teaching and learning, with the ultimate outcomes of improved student engagement and performance, they took very different paths to moving toward this goal. Therefore, this demonstration project was both an effort to support schools to embed experiential education, and also a study in how partners in an initiative can be responsive to such diverse schools and emerge with a story to tell.

This documentation report on PSEED is an attempt to tell that story. Through data collection in Year 3 that included interviews, observations, and school and classroom artifacts, a story emerged with common themes and lessons learned.<sup>1</sup> While the full report details the findings, in this executive summary we highlight examples of change in schools over the three years. Thus, not all examples apply to all schools.

“The kids are the do-ers of learning. They're constantly doing it; they're in control of it. It's not the teacher up there telling them what to do, but they're experiencing it first-hand. They're exploring, and then through their exploration they're experiencing.”

—Teacher

## What Is Experiential Education?

Experiential education is alternately described as a philosophy, a process, a movement, or a method. Experiential education involves a transaction between a teacher and a student to increase knowledge or develop skills. In PSEED, experiential education was represented in the Request for Proposals as a cycle with four steps that suggest the ongoing nature of learning. Regardless of the content of the experience, learners use the following sequence:

- Engagement in concrete experiences;
- Observation of and reflection on the experiences;

- Formation of concepts and generalizations from the experiences;
- Application of new understandings.<sup>2</sup>

In the winter of 2007, the collaborative development of a PSEED rubric (see Table 1) began.<sup>3</sup> The rubric described benchmarks for experiential education in four focus areas and further defined experiential education for school staff. However, the definition of experiential education differed from school to school and evolved over the life of the initiative.

| Curriculum   | Pedagogy  | School Culture   | Structures   |
|--|---|--|--|
| Authentic<br>Content-rich<br>Engaging<br>Project- and<br>performance-<br>based | Inquiry-based<br>Flexible<br>Active<br>Reflective | Quality-focused<br>Connected<br>Collaborative<br>Visible | Supportive<br>leadership<br>Flexible schedule<br>Flexible structures<br>Inclusive student<br>groupings |

The multifaceted learning process of experiential education can be applied to any content area, and in fact often works best with an interdisciplinary approach. Some examples of experiential curricula that PSEED schools created, which take students through these four steps, include:

- An elementary school unit on farming, in which students visit farms, prepare and taste foods, write and draw about their experiences, and produce books on the unit.
- A middle school unit on recycling, in which students learn about the effects of waste on the environment, analyze the amounts of waste they produce as individuals in a day and graph it, initiate and implement a recycling program at their school, and produce public service announcements to spread awareness.
- A high school health project, in which students learn about diabetes and its causes from an expert in diabetes, map their community for the incidence of diabetes and availability of resources such as healthy food and exercise facilities, analyze neighborhood restaurant menus for whether or not items are good or bad for people with diabetes, and create a board game based on what they find.

“Experiential education is... taking what they’re learning in the classroom and bringing some authenticity to it, in terms of putting it in a real-life situation so that they can understand it.”  
—Point person<sup>4</sup>

As evident from these examples, experiential education uses multiple senses and intelligences and therefore reaches students of various learning styles. Such an approach can be effective in reaching a wide diversity of students, including traditionally underserved populations such as English language learners and students with special needs.<sup>5</sup>

## Why Experiential Education in Boston Pilot Schools?

The Barr Foundation chose to work with the Boston Pilot schools on this project because, since 1994, the Boston Pilot schools have provided models

of innovative practices for the Boston Public Schools and beyond. Like charter schools, Pilot schools have autonomy in the areas of budget, staffing, governance, school calendar, and curriculum and assessment. The theory behind Pilot schools is that student engagement and achievement increase when schools are small, personalized, mission driven, and have autonomy over their resources in exchange for increased accountability. There are currently 20 Boston Pilot schools, spanning grades preK–12 and serving approximately 11% of the BPS student enrollment.

By supporting the strengthening and embedding of experiential education in the Pilot schools, the Barr Foundation hoped to learn how experiential education makes a difference in this subset of the district schools and supports high-quality teaching and learning. Seven Pilot schools were involved in PSEED implementation, which began in the fall of 2005 and ended in the spring of 2008. (Table 2)

**What Were the Elements of PSEED?**

While most of the PSEED work occurred at individual schools, there were a few common streams of activities in which all grantees participated. From the start, “Knowledge Sessions” were held three times per year to create opportunities for grantees to share their experiences, as well as for the initiative’s funder and managers to discuss project implementation, learnings, and grant management. The Barr Foundation also created a website for the project to support real-time networking between schools. Staff of Expeditionary Learning Schools Outward Bound led a three-day Summer Institute prior to the third and final year of the initiative. In Year 3, subsets of teachers and administrators at each school completed the rubric.

These cohort-wide PSEED communication and development vehicles were designed to supplement the intensive professional development and

“My definition would be hands-on learning with real-world artifacts that have a purpose and give access to different types of learners, so that it’s not always reading in a book or looking at a computer screen and reading. They’re getting to touch things and feel things and hear things and see things.... They might be learning facts, but also they’re learning *about* their learning through that process.... The process is just as important as the product.”

—Teacher

**Table 2: Summary of PSEED Focus Areas by School**

| School Name                         | Grades Served | Total Enrollment | PSEED Focus                                 |
|-------------------------------------|---------------|------------------|---|
| Boston Arts Academy                 | 9–12          | 415              | Design fundamentals and digital portfolios  |
| Boston Day and Evening Academy      | 8–12          | 294              | Environmental and health education          |
| The Harbor School                   | 6–8           | 270              | Physical and environmental education        |
| Lee Academy Pilot School            | K0–4          | 250              | Physical and arts education                 |
| Lilla Frederick Pilot Middle School | 6–8           | 661              | Environmental education                     |
| Mission Hill School                 | K1–8          | 166              | Arts, physical, and environmental education |
| Young Achievers K-8 Pilot School    | K1–8          | 340              | Environmental education                     |

“The Barr Foundation wanted to have an impact on making educational environments “work better” for all students, including those with limited English proficiency and learning disabilities, and saw experiential education as one way to accomplish this. ,

technical assistance most schools individually secured through their own partnerships with organizations and internal staffing decisions. For example, Lee Academy partnered first with Boston Children’s Theater and then Wheelock Family Theater; the Harbor School with Project Adventure; and Lilla Frederick Pilot Middle School with the King School, an experiential education middle school in Maine.

The PSEED project was structured such that there were several common cross-school components/experiences and diverse individual school implementation plans. The most consistently useful elements included:

- Technical assistance and professional development opportunities;
- Strong partnerships with community organizations for professional development and curriculum resources;
- Representative in-school teams that guided and grew the initiative over the course of the three years;
- PSEED-specific school staff with content expertise for facilitating the work and for curriculum development and documentation;
- Social justice, project-based, outside-the-classroom curriculum.

PSEED schools also faced some common challenges, including securing in-house support from the right coordinator—someone with enough expertise and relationships with staff to be helpful, and at the same time with sufficient flexibility and time not consumed by other roles or responsibilities. Most schools struggled to find enough time for all the needed planning, professional development, and technical assistance; several tried out a number of organizations and partners before finding the right match.

Other challenges were inherent in the very nature of experiential education. Its definition is broad enough to mean many things to many people, and in an initiative that provided only a very general concept at the start, this sometimes resulted in a lack of clarity about what schools were to do or how they were to do it.

Experiential education’s strength is its ability to bring relevance to the learning process, but, in an accountability framework based on high-stakes testing in math and English language arts skills, many teachers felt torn

**Examples of projects and products in the PSEED schools, with the disciplines that they covered:**

- Haiti deforestation**—science, writing, environmental justice
- Mapping wireless access in neighborhood**—technology, performance, math/geography, social justice
- Garden**—math, science, health, social justice
- Radio show**—writing, presentation, music
- Recycling**—science, writing, environmental justice
- Sailing**—physical education, meteorology, physics
- Nutrition and diabetes**—science, math, writing, social justice
- Park design**—math, writing, science
- City design**—geometry, writing, art
- Culminating senior project**—arts, academics, technology, social justice
- Lobster tank**—biology, creative writing
- Farm books**—reading, writing, math, drawing

“They’ve created a meeting time for the teachers to come together and plan. It’s regular, it’s consistent, it’s intensive, it’s focused, it’s away from the school so the teachers aren’t distracted. It’s ten hours a year per grade of that focused planning time, plus the other professional days that they have. ,  
—Point person

between investing class time in hands-on curriculum projects and giving direct instruction in basic skills. While they acknowledged the possibility of combining both into a single experience, doing so is a complex task, and one that only those schools and teachers that came to the project with a strong background in experiential education were able to achieve.

“There are a million ideas of things you want to do, but the reality is you still have to spend time teaching grammar.”  
—Teacher

## What Changes in Schools Resulted from PSEED?

Each school in the project had its own mission and its own history with experiential education. Some schools had centered their teaching and learning around experiential education for years, while others were just starting to try out this approach. Not only was each school at different points in a developmental spectrum of implementing experiential curriculum and instruction, but also each school had different goals and scopes for implementation, differing levels of experience among teachers, and different foci for the work (e.g., arts, environment, physical education).

Despite the diverse implementations of PSEED in the seven schools, some impacts were apparent across schools. We highlight some of the common findings about how teachers and students experienced PSEED.

### Impact of Experiential Education on Teacher Practice

In order to embed experiential education more deeply in their pedagogy, teachers were stretched in their practice. Through their PSEED work, they articulated new ways to give students more opportunities to create their own knowledge, such as:

- Asking students to do more higher-order thinking, such as questioning, explaining, experimenting, predicting, or making connections;
- Asking guiding and probing questions rather than showing and telling students what they need to learn;
- Situating learning outside the classroom;
- Incorporating more opportunities for students to experiment with materials and ideas;
- Allowing learning to be more inquiry based, and incorporating reflection into the process;
- Putting the responsibility for learning in the hands of the students;
- Being willing to revise instruction based on unknown or ambiguous outcomes of an inquiry and trusting that learning will occur.

The documentation project found that embedding experiential education directly impacted teacher practice. In order to use the experiential



“One of the main challenges at any school is meeting the state standards. I think that it’s hard for some teachers to see that they can meet those standards in a nontraditional teaching style.”  
—Point person



education cycle and develop curriculum that was experiential, teachers needed to design learning units and spaces that encouraged students to construct knowledge and have more control over their learning.

### **Impact of Experiential Education on Students**

The new practices being used by teachers affected students in multiple positive ways. Teachers and administrators described changes in student attitudes toward learning and engagement, behaviors such as discipline problems and school attendance, and actual attainment of skills and knowledge.<sup>6</sup> Changes in student attitudes, behaviors, and roles noted by most or all of the schools included:

#### Student Attitudes and Behaviors

- Increased student engagement (7 schools)
  - Increased student productivity and excitement about learning
  - Evidence that students were less competitive and more cooperative in their work
- Increased student responsibility for completing work (6 schools)
- Increased student empowerment to make a difference— social justice and activism (5 schools)
- Increase in students’ sense of place in the world (6 schools)
- Fewer discipline referrals and behavior issues (3 schools)

#### Student Roles

- Evidence that students were co-creators of knowledge and better problem solvers (7 schools)
- Evidence that students were acting as teachers and leaders (5 schools)

Specific measures of the acquisition of skills and knowledge were not available to the documentation project. However, the documentation project collected data that suggested several areas of growth in students. Observations of the following student effects were noted: increased intellectual risk taking; better cognition; and enhanced development of 21st-century skills such as problem solving, critical thinking, and teamwork.

Evidence from interviews, observations, and documentation showed that these changes in student attitudes, behaviors, roles, skills, and knowledge were widespread across PSEED schools. While not every example occurred in every classroom, nor in every school, taken together with the evidence that teachers changed their curriculum and pedagogy with the purpose of improving engagement and performance, the findings suggest that PSEED impacted both teachers and students in a positive manner.

“I think the more they own of it, the more they are actually going to think, ‘Yeah, this is a part of me. This is something that I’m interested in and this is something that I could go into more later.’”

—Teacher

### **What Practices Led to the Greatest Success in Implementing Experiential Education?**

As a demonstration project, beyond implementing quality experiential education in the seven schools, the purpose of PSEED was to build knowledge about *how* to succeed in this complex endeavor, in order to inform

other schools and districts. There were some common threads about what worked in PSEED and what strategies might be usefully employed in any similar initiative in the future:

### **1. Clarity of goals, strategies, and expectations**

The initiative began with a stated strategy — experiential education — and goals for improvements in student engagement and performance. From the beginning, the Barr Foundation was responsive to the needs and desires of the schools regarding the focus of the PSEED project. As a result, a great deal about the project evolved over time, such as the group’s definition of experiential education, the common experiences offered to the schools, individual schools’ staffing of the project, and the requirements for documentation and sharing. The evolving nature of the initiative and the openness of the partners to change was a strength for the schools with strong histories of experiential education. At other schools, the very flexibility that was helpful in responding to changing needs also proved to be a challenge, as administrators and teachers often struggled with a lack of clarity regarding the structure, processes, expectations, capacity, or even direction of PSEED.

### **2. Leadership with a strong vision of experiential education**

The importance of a principal who has a strong vision of experiential education cannot be overstated. Building a school culture that embraces, understands, and expects experiential education must come from the top, joined by a team of respected staff who can build ownership across the faculty. In the PSEED schools that made the most progress in embedding experiential education, the school leader and/or PSEED implementation leader had a clearly articulated, unwavering vision of how experiential education fit into the school’s goals.

Schools benefited from having a consistent PSEED coordinator with strong content knowledge, sufficient dedicated time, and familiarity with the school’s culture. Paid, integrated coordinators guided the work, maintained momentum, provided in-house professional development, and consulted one-on-one with teachers. In addition, schools that maintained an active implementation team over the three years benefited from having an internal group of leaders to keep up momentum and continue to plan in response to successes and challenges.

### **3. Professional development and technical assistance**

While all the schools included professional development in their PSEED work, often through community partnerships, the quality, depth, and extent varied considerably both between schools and over time. Ongoing quality professional development opportunities would have helped schools with new teachers, and in many cases, new leaders, who entered PSEED schools every year. Training is not enough: hands-on technical assistance and coaching were needed for such learning experiences to take hold.

“When the kids think that their work is public and important, it becomes more engaging.”

—Principal

“I think a major difference is that it’s gotten our kids and staff out of the classroom and really educated them around looking at their community and defining community as a school community, as a neighborhood, as a city, as a region of the United States.”

—Point person

## Participating Organizations

The **Barr Foundation** focuses its efforts on enhancing the quality of life for Boston residents in the fields of education, the environment, and the arts. By focusing on experiential education in Pilot schools, the foundation hoped to learn how these interventions make a difference in this subset of the district schools.

### BARR FOUNDATION

Using KNOWLEDGE, NETWORKS and FUNDING  
to Build a Better Boston for All

**Boston Pilot Schools** are committed to the idea that student engagement and achievement increase when schools are small, personalized, mission-driven, and have autonomy over their resources in exchange for increased accountability. They serve as laboratories of innovative practices for the district and beyond.

The **Center for Collaborative Education (CCE)** seeks to improve student learning in K–12 public schools and districts by promoting models of whole school reform that are focused on school and systemwide change and instructional improvement. CCE's goal is to be a resource and catalyst for the creation of autonomous and flexible schools in which learning is purposeful and meaningful, assessment demonstrates that students can do important things, teachers and students know each other well, diversity is respected and equity is embedded in all practices, and democratic values are modeled.

**Community Matters (CM)** is a consulting firm that works with leaders to create lasting initiatives to ensure the educational and social development of children and youth. CM helps school districts, community organizations, government agencies, universities, labor organizations, and foundations have an impact on the lives of the people they serve and the institutions and communities of which they are a part.

## 4. Time

All the ingredients of successful experiential education — professional development, leadership team, curriculum development and documentation, constant reflection with subsequent revision, collaborative teaching, development of partnerships, technical assistance, presentation of student work — have one common factor: they require time. Time for PSEED-wide activities was always at a premium. Their Pilot status enabled all the schools to set aside significant time for professional development and faculty collaboration.

## 5. Rigor and relevance

Integrating content into experiential education and simultaneously ensuring that the lesson is engaging and relevant for students is an ongoing challenge. In the best of worlds, rather than having to find a balance between two types of education, teachers are able to craft lessons in which students benefit from integration — learning new skills *and* gaining knowledge through their experiential education opportunities.

## Conclusion

Experiential education can be a broad term, difficult to define. Without intensive professional development and technical assistance, and in a context of school-level challenges such as multiple initiatives, limited time, and staff turnover, some schools had difficulty making progress, especially in the first year of PSEED. However, in the end, all the schools were clear about their goals and strategies and were able to implement them with increasing effectiveness. The schools that had previously embraced deep work on experiential education were able to make gains in areas such as technology, documentation, and assessment, while those just entering the field came away from the initiative with a better sense of how to make experiential education work for them. Individual teachers were transformed, and in turn reinvented their classrooms. Schools embraced new visions of what experiences that combine content and engagement can look like. The next steps that schools and partners are taking — including the final revisions to the rubric, new work on assessment through digital portfolios, and intensive experiential education implementation — all reflect the powerful effects of the three years of the PSEED initiative.

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1 This executive summary and the full report, authored by Rosann Tung, Beth Miller, and Rolanda Ward, may be downloaded at <http://www.barrfoundation.org>.

2 Hansen, R. (Spring 2000). The role of experience in learning: giving meaning and authenticity to the learning process in schools. *Journal of Technology Education*, 11, no. 2, 23–32.

3 The rubric and user guide may be downloaded at <http://www.barrfoundation.org>.

4 Each PSEED school had a designated PSEED “point person,” a staff member responsible for either leading the initiative or administering it. This person was also the primary contact person for the documentation team.

5 Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books; Hansen, R. The role of experience in learning, pp. 23–32.

6 Because interviews were open ended, interviewees may not have discussed changes in any of these categories, but that does not mean they did not occur. Therefore, the numbers in parentheses, which indicate the number of schools in which staff members made these observations, are likely an undercount.