

## **Out-of-School Time Resource Center Summary of Literature Search: Evaluating the Impact of Teacher Training on OST Program Quality**

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### **Background**

The University of Pennsylvania recently established an Out-of-School Time Resource Center (OSTRC). Funded by a grant from the William Penn Foundation, its overarching goal is to enhance out-of-school time programs throughout Philadelphia and, ultimately, their ability to impact program participants. Designed for area program staff and administrators, its objectives are to:

1. Compile, distribute, and help coordinate resources among programs, systems, and organizations.
2. Establish a formal, electronic, physical, and accessible source of OST resources.
3. Identify, develop and employ methods of evaluating the impact of these resources on program quality.

The last of these three objectives involves researching and/or creating – and ultimately implementing - instruments to specifically measure the impact of teacher training on OST program improvement. The first phase of this activity, conducting a thorough literature search and overall solicitation of information, is summarized in the following document.

### **Process**

OSTRC staff began this endeavor by consulting familiar research databases on the University of Pennsylvania's Library website. These included PSYCINFO, Social Abstract, and Social Service Abstracts. The staff searched for any studies addressing teacher training and program quality. They then initiated a Google search on the Internet using the same key keywords. Simultaneously, the OSTRC staff investigated familiar OST- related organizations, programs, and websites such as the Afterschool Alliance, the National Institute on Out-of-School Time, the Harvard Family Research Project, and Promising Practices in Afterschool. Comprehensive research was conducted in the ERIC database as well as on the Harvard Family Research Project database. National OST colleagues were contacted and asked for help in finding evaluations or studies on the topic. One response from this last strategy led to several useful websites where pertinent information was obtained. A second colleague referenced another website, [www.nsd.org](http://www.nsd.org), where the staff procured pertinent information on evaluating staff development targeted at classroom teachers.

### **Challenges**

The largest challenge in this task was locating **relevant** studies/evaluations of teacher training **and** their impact on OST program quality. As an emerging field, OST and after-school

programs have begun the general process of program assessment, but evaluations of teacher training on program quality are barely existent. It was difficult sifting through the studies to determine whether or not they pertained to the desired information. It was easy to stray from the relevant data, as the useful information was mixed in with other information.

**Resources**

The following were the most useful resources in this literature search:

**Websites**

- [www.library.upenn.edu](http://www.library.upenn.edu): PSYCINFO, Social Abstract, Social Service Abstracts, ProQues, EBSCOHOST
- [www.gse.harvard.edu](http://www.gse.harvard.edu): Harvard Family Research Project, The Finance Project
- [www.afterschool.org](http://www.afterschool.org): Promising Practices in Afterschool
- [www.ncrel.org/sdrs/areas/issues/educators/profdevl/pd500.htm](http://www.ncrel.org/sdrs/areas/issues/educators/profdevl/pd500.htm) : Evaluating Professional Growth and Development
- [www.southalabama.edu/coe/bset/johnson/660lectures/lect5.htm](http://www.southalabama.edu/coe/bset/johnson/660lectures/lect5.htm) : Kirkpatrick Model of Training Evaluation
- [www.horizon-research.com/pdconvocation/20021001/profiling.pdf](http://www.horizon-research.com/pdconvocation/20021001/profiling.pdf) : Evaluating Teacher Professional Development Program Quality
- [www.nbpts.org/research/archive\\_3.cfm?id=10](http://www.nbpts.org/research/archive_3.cfm?id=10) : I Am a Better Teacher
- [www.nbpts.org/research/archive\\_3.cfm?id=8](http://www.nbpts.org/research/archive_3.cfm?id=8) : The Impact of National Board Certification on Teachers
- [www.nsd.org](http://www.nsd.org): Research Links Professional Development and Student Learning

**Miscellaneous**

- A Summary Report: An evaluation of Building Exemplary Systems for Training Youth Workers (BEST)
- Academy for Educational Development (AED)
- BEST Initiative
- The National Training Institute for Community Youth Work (NTI)
- Executive Summary: The Bush Administration Agenda for a Quality Teacher in Every Classroom

**Findings**

Relevant information and sources are summarized in the following table:

Source	Relevant Information
<p><b>National Staff Development Council</b></p>	<ul style="list-style-type: none"> <li>• Recommend a study involving quantitative and qualitative analysis of multiple cases.</li> <li>• Evaluation of staff development must focus on:               <ol style="list-style-type: none"> <li>1. Initial collection of data on participants reactions (to workshops/courses)</li> <li>2. Teacher’s acquisition of new knowledge and skills</li> <li>3. How that learning affects teaching</li> <li>4. How those changes in practice affect student learning</li> </ol> </li> <li>Evidence by evaluators of how staff development has affected school culture and</li> </ul>

<p><b>The Kirkpatrick Model of Training Evaluation</b>  Kirkpatrick, D.L., (1998). <u>Evaluating Training Programs: The Four Levels</u>, (2<sup>nd</sup> Ed.).</p>	<p>other organizational structures</p> <ul style="list-style-type: none"> <li>• Kirkpatrick provides an evaluation model that has been used since the late 1950's by the professional development community, which measures four kinds of outcomes that should result from a highly effective training program. It outlines four levels of evaluation: <ol style="list-style-type: none"> <li>1. <u>Reaction</u>: This measures how those who participate in the program feel about it. Uses open ended and prescriptive questionnaires.</li> <li>2. <u>Learning (Outcomes)</u>: This includes changes in knowledge, skills, and/or attitudes and focuses on measuring what was covered in the training event (learning objectives). It should be done immediately after the training event through achievement tests, performance tests, and questionnaires. The model suggests a research design with a control group and a pretest measure.</li> <li>3. <u>Behavior</u>: This measures the transfer of knowledge, skills, and attitudes from the training context to the workplace. It should use a control group if possible, allow time for behavior change to occur, do pretest/posttest measures, survey and/or interview participants, and repeat the evaluation at an appropriate times (one group pretest/posttest design).</li> <li>4. <u>Results</u>: These are "bottom line" improvements that occurred because of participants' attendance in the program. They use an interpreted time series design with a control group.</li> </ol> </li> <li>• Evaluators should establish performance standards based on the desired outcomes.</li> </ul>
<p><b>The Impact of National Board Certification on Teachers: An NBPTS Research Report</b>  National Board for Professional Teaching Standards</p>	<ul style="list-style-type: none"> <li>• One survey examined the impact of the assessment process on teachers who have achieved National Board Certification. The second survey examined the effect of the scoring process on the teachers who served as assessors.</li> <li>• Surveys were sent to a random sample of 600 of the 4, 804 teachers who achieved NBC from 1994-1999, and to a random sample of 600 of the more than 1,500 teachers who served as assessors for the NBPTS in the summer of 2000.</li> <li>• 80% if the National Board Certified Teachers (NBCT'S) surveyed said the NBC process was better than other professional development experiences.</li> <li>• 91% of surveyed NBCT's said that NBC has positively affected their teaching practices and 83% said they have become more reflective about their teaching.</li> <li>• 69% of the surveyed NBCT's reported positive changes in their student's engagement, achievement, and certification-they have received increased recognition and respect</li> </ul>
<p><b>I Am a Better Teacher: An NBPTS Research Report</b>  National Board for Professional Teaching Standards (November 2001)</p>	<ul style="list-style-type: none"> <li>• A national survey of 5,641 National Board Certified candidates was conducted in September 2001. The survey showed that the certification process helps teachers improve their teaching and their interactions with students and parents.</li> <li>• <u>Key Finding #3</u>: Participation in the National Board Certification process enables teachers to create stronger curricula (89%), improves their abilities to evaluate student learning (89%), and helps them develop a framework in which to use state content standards to improve teaching (80%).</li> <li>• <u>Key Finding #4</u>: Participation in the National Board Certification process enhances teacher interaction with students (82%), parents and guardians (82%), and helps to improve collaborations with other teachers (80%).</li> </ul>

<p><b>Improving Teacher Quality</b>  Grover J. Whitehurst,  Assistant Secretary for  Education Research and  Improvement, U.S.  Department of Education  (Summer 2002)</p>	<ul style="list-style-type: none"> <li>• This compared the effects of teacher participation in professional development, specifically targeted to a mathematics education reform initiative in California, to teacher participation in special topics and issues workshops that were not linked to the content of the mathematics initiative</li> <li>• The more time teachers spent in targeted training, the more their classroom practice changed in ways were consistent with the reform.</li> <li>• Teachers who participated in special topics and issues workshops showed no change in their classroom practice and knowledge.</li> <li>• This study suggests that when professional development is focused on academic content and curriculum that is aligned with standards-based reform, teaching practice and student achievement are likely to improve.</li> </ul>
<p><b>An Evaluation of Building Exemplary Systems for Training Youth Workers (BEST): Summary Report</b>  A National Initiative of  the National Training  Institute for Community  Youth Work (2002)</p>	<ul style="list-style-type: none"> <li>• An impact study of the 15-city National Best Initiative programs was conducted from 1999-2001.</li> <li>• Pre and post training surveys were completed by Advanced Youth Development (AYD) training participants.</li> <li>• Youth workers were interviewed.</li> <li>• Written reflection logs were completed by youth workers.</li> <li>• Interviews were conducted with BEST Initiative stakeholders.</li> <li>• The study concluded that: <ol style="list-style-type: none"> <li>1. Professional development is a critical element of a youth-serving sector’s infrastructure for maintaining quality staff and programs.</li> <li>2. Professional development must be continuous and provide a range of opportunities to increase youth workers’ knowledge of youth development, use of common language, and skill in providing programming for youth.</li> <li>3. A system of supports for professional development opportunities deepens the impact of AYD training on youth worker practice.</li> </ol> </li> </ul>
<p><b>Evaluating Teacher Professional Development Program Quality</b>  Patti Bourexis, The  Study Group Inc.,  (October 2002)</p>	<ul style="list-style-type: none"> <li>• Evaluation has a responsibility to influence program plans, implementation, and results in conjunction with quality standards based on what is known from our research and experience</li> <li>• Follow-up focuses primarily on how the teachers’ knowledge and skills are used in the classroom. This is achieved by: <ol style="list-style-type: none"> <li>1. Forming Evaluation Teams of 4-6 people</li> <li>2. Selecting a quality practice to assess</li> <li>3. Assessing the quality of the practice</li> <li>4. Formulating recommendations for upgrading the quality of practice</li> </ol> </li> </ul>
<p><b>Executive Summary: The Bush Administration Agenda for a Quality Teacher in Every Classroom</b></p>	<ul style="list-style-type: none"> <li>• President Bush proposes addressing the challenges of teacher quality and teacher training by providing: <ol style="list-style-type: none"> <li>1. Assistance to states as they strive to improve teacher quality</li> <li>2. Specific steps to enhance the teacher profession and the work environment</li> <li>3. New tools for teachers in specific areas of instruction</li> </ol> </li> <li>• The Teacher and Principal Training and Recruitment Fund supplies \$2.85 billion in grants.</li> </ul>
<p><b>National Board of Professional</b></p>	<ul style="list-style-type: none"> <li>• Standards are developed by committees of teachers and other experts, and are approved by a Board of Directors.</li> </ul>

<p><b>Teaching Standards</b></p>	<ul style="list-style-type: none"> <li>• Committees develop standards that reflect the Five Core Propositions.</li> <li>• After identifying the major standards for their field, each standards committee continues to revise and refine its document. This usually lasts 12 –18 months.</li> <li>• The document is then submitted to the NBPTS Board of Directors for approval to be released for public comment.</li> <li>• The draft is posted for the duration of eight weeks for public comment and review.</li> <li>• After the standards are adopted by the NBPTS Board of Directors, the document is published and the standards are used for National Board Certification.</li> <li>• The standards serve as the basis for National Board Certification.</li> <li>• These standards describe the highest level of teaching in different disciplines and with students at different developmental levels.</li> <li>• These standards represent a consensus among accomplished teachers and other education experts about what accomplished teachers should know and be able to do.</li> </ul>
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**Conclusion**

Since teacher training is believed to play a significant role in developing and enhancing OST programs (as well as other programs in which teachers work with students), it was disappointing to learn that teacher training and professional development are not being thoroughly evaluated or connected to improvements in program quality. After sifting through all of the data, the OSTRC staff were able to pinpoint three indicators used to measure the quality of teacher training:

(1) positive student outcomes; (2) teacher improvement; and (3) program improvement. Students’ academic achievement and behavior modification were the most popular indicators of effective professional development. However, these indicators are much easier to observe and measure in formal classrooms than in OST programs.

A reoccurring theme in the literature review was that the effectiveness of professional development is generally evaluated on four levels/in four ways: (1) gathering the participants’ reactions to the experience; (2) measuring the knowledge and skills acquired by the participants; (3) measuring the participants’ actual use of the acquired knowledge and skills; and (4) measuring the impact of the participants’ increases in knowledge and skills on student learning (Kirkpatrick discusses these in-depth). The most popular form of evaluating teacher professional development was generalized surveys (questionnaires) and large-scale synthesis (meta-analysis). Yet, in both of these and other forms of evaluation, developing appropriate indicators of quality was very difficult and time-consuming. In researching this topic, the staff concluded that there are no definitive answers to the question of evaluating the effectiveness of professional development. If staff, administrators, and policy makers believe that professional development does make a difference in teacher and program quality (and student learning), they must create and implement better measurements.

**Next Steps**

A possible next step would be to develop an experimental “best practice” model for evaluating teacher trainings/professional development and distributing it or implementing it (workshop, video, newsletter, etc.) through the OST Resource Center. Prior to that the staff may confer with national colleagues and, ideally, determine next steps or experiments collectively.

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