

## ECEPD FY 2007 Performance Report Boston Ready

**Boston Ready reported no GEPRA data for FY 07.**

### Intervention

- Describe the professional development (PD) intervention as implemented including the setting, content, and delivery (i.e., curriculum, provider, duration, intensity, and implementation fidelity).

From April 2007 to August 2007, 5 paraprofessionals and 22 teachers participated in a total of 550 hours of professional development provided by Boston Ready.

PD	Date	# Paras	# of Teachers	Total number hours of PD
Universal Design	April 24, 2007	1	4	25
Second Steps	May 14, 2007	1	6	35
Second Steps	May 15, 2007	1	2	15
Universal Design	June 4, 2007	2	12	70
Universal Design	June 5, 2007	2	3	25
Language & Literacy Devt – 1 <sup>st</sup> class only - Second Language Learning	June 24, 2007	2	3	25
Completed courses	Summer 2007	1	7	360
<b>TOTALS</b>		<b>5*</b>	<b>22*</b>	<b>550</b>

\* Paraprofessionals and teachers participated in multiple events

Three types of professional development were provided in 2007.

1. *Universal Design* was a five hour workshop session presented by Boston Ready Staff, Lisa Van Thiel and Su Theriault. The attached PowerPoint was used for all three sessions. Each session was a 5 hour interactive workshop.

2. The *Second Steps* training was presented by *Hampshire Educational Collaborative*, using the overheads from Committee for Children's train-the-trainer materials. Each session was a five hour interactive workshop.

3-A. Language & Literacy Development – 1<sup>st</sup> class only, focused on Second Language Learning and was presented by Nicole St. Victor, an independent consultant with experience and expertise in this topic. This five hour training focused on:

- Valuing and building on home language development
- Partnering with parents to build the child's communication skills, and language development in both languages
- Continuum of English Language learning and factors influencing second language learning
- Characteristics of one's own culture, use of language and the ways in which these can differ
- Effects of cultural and linguistic differences on growth and development
- Use communication strategies and resources to facilitate understanding of subject matter for students whose primary language is not the dominant language

The materials used by Nicole were share with Boston Ready staff for future use. Five students attended the first class only and were unable to complete course during the summer.

3-B. *ECHD 440/640 – Language Development and Literacy* in Early Childhood is an UMass Boston course, see attached syllabus. It was presented in a blended format with two face-to-face classes and the remaining of the material online presented through online modules. The online modules consist of:

- BREEZE presentations, a 20 minute PowerPoint with a voice and printed script
- Articles to read, along with text book readings
- Discussion questions that students post a response and reply to each other.

These modules are reused each semester. This course was taught by Sandy Putnam-Franklin and Su Theriault, Boston Ready staff. The students who completed the course participated in 45 hours of professional development.

### **Evaluation design**

- *Present the final evaluation questions.*

Does the Boston Ready ECEPD intervention increase access of children to higher quality early childhood education?

Do children in Boston Ready classrooms show evidence of a significantly greater increase in readiness for Kindergarten compared to children in Control classrooms?

- *Describe the evaluation design, indicating whether it is an experimental, quasi-experimental, or other study. For experimental and quasi-experimental designs, describe how treatment and control/comparison groups were assigned or matched. For “other studies,” explain the rationale i.e. why an experimental or quasi-experimental study was not conducted and describe the details of the evaluation design.*

For the experimental design, we used group randomization within the Boston Public School District to assign our intervention and control classrooms. Randomization was classified by blocks prior to treatment assignment to improve statistical power and precision (Raudenbush, Martinez, & Spybrook, 2005).

- *For experimental and quasi-experimental evaluations describe services received (if any) by the control/comparison group including the setting, content, and delivery of services. If other designs were implemented in lieu of an experimental and quasi-experimental evaluation, explain what was done.*

Given the experimental design of random assignment within the same school district, the classroom setting was identical across groups within blocks (i.e., single classroom neighborhood schools were matched to single-classroom neighborhood schools and early education centers with multiple preschool classrooms were matched to other early education centers). Control teachers received the same professional development in literacy instruction through the Boston Public Schools.

- *Describe the size of the sampling frame, and how the study’s sample was selected. Provide the number of centers, classrooms, teachers, and/or children selected for each group in the study.*

In Fiscal Year 07 all preschools in the Boston Public Schools serving 4-year-olds (K1 schools), which were not already involved in an ongoing research project on the Building Blocks mathematics

curriculum (n=18 classrooms unable to participate), were recruited for the study. Schools were stratified by the following characteristics: 1) schools with integrated classrooms, 2) schools with Sheltered English Instruction, 3) schools with substantially separate classrooms, 4) schools with no specialized programs, and 5) Early Learning Centers which included multiple preschool classrooms in an integrated program. Within the stratified categories, schools were randomized to either professional development intervention condition or a control condition where they received PD as usual from the school district. We randomized by school rather than by classroom to avoid spillover within a school. Three schools rejected the invitation to participate and one wanted to defer a year. Twenty schools agreed to participate in the first year, through 1 intervention school dropped out of the study before any data could be collected. Altogether data was collected from 28 classrooms/teachers in the 19 remaining schools.

- *Describe all teacher and student outcome measures used in the study (GPR-A and non-GPR-A), including evidence that the instruments used are reliable and valid.*

The Early Language and Literacy Classroom Observation (ELLCO) was used to assess the quality of 28 early childhood classrooms in Boston as part of the Boston Ready study during the Spring of 2007. This was administered prior to the intervention and establishes a baseline for the study.

Below are tables displaying the results of a reliability analysis. Cronbach's alphas are reported which show the internal consistency of the scales. Our alphas for the Literacy Environment Checklist were slightly higher than those reported in the ELLCO user guide while our Classroom Observation alphas were very similar to those reported in the guide. Our Full-Group Book Reading and Writing alphas were lower than those reported in the guide while our Literacy Activities Rating Scale Total score alpha was higher.

#### Cronbach's alpha for the Literacy Environment Checklist data

Composite variable	Alpha
Books subtotal	.82
Writing subtotal	.78
Literacy Environment Checklist Total score	.86

#### Cronbach's alpha for the Classroom Observation data<sup>1</sup>

Composite variable	Alpha
General Classroom Environment subtotal	.87
Language, Literacy, & Curriculum subtotal	.85
Classroom Observation Total score	.90

#### Cronbach's alpha for the Literacy Activities Rating Scale data

Composite variable	Alpha
Full-Group Book Reading subtotal	.82
Writing subtotal	.71
Literacy Activities Rating Scale Total score	.77

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<sup>1</sup> As per the ELLCO User's Guide, the Presence and Use of Technology score was not included in the alpha for the General Classroom Environment subtotal or the alpha for the Classroom Observation total score.

## Evaluation implementation

- *For experimental and quasi-experimental evaluations, compare the characteristics between the treatment and control/comparison groups to show that there were no systematic differences at baseline. If there were systematic differences, describe those differences and how they were addressed in the analysis.*

Schools and classrooms in the treatment and control groups were all drawn from the same school district and assigned in blocks so that there would be no systematic difference between the groups, i.e., one group wasn't over-represented with better resourced early learning centers.

- *Discuss the timing and procedures used for data collection. For experimental and quasi-experimental evaluations, discuss whether the data collection for the treatment and control/comparison groups used the same procedures and was conducted at the same (relative) times.*

The classroom observations were scheduled immediately following IRB approval for the study in January 2007, recruitment of sites in March 2007 and random assignment to control and experimental groups in April 2007. Treatment and control group classroom visits were scheduled simultaneously with multiple trained observers collecting data over the same time period using the same procedures, between April and June 2007. Each observer received extensive training and was accompanied by a supervisor on visits until reliability was established. During this final training and reliability, where there was discrepancies the supervisor's observations scores were used.

- *Provide attrition rates (percentage of teachers and children who participated in the pre-tests but not post-tests) and response rates (the percentage of teachers and children for whom there are data for each instrument).*

There was only one test administration in Fiscal Year 07 because of the delayed start of the project.

- *Describe how the data were analyzed for each outcome. Be specific about the statistical techniques used. For regression analyses, describe the specified model including covariates. For hierarchical linear models (HLM) also identify the levels. Provide the type of statistical test used to determine significance, and describe how effect sizes were calculated.*

To examine differences between treatment and control group classrooms on the ELLCO baseline observations *t*-tests were used.

- *Describe any problems in implementing the evaluation design and lessons learned and how they were addressed.*

Boston Ready was originally designed to be a rich, intensive learning experience that would positively transform teacher performance through (1) training and implementation of the OWL (literacy curriculum), Building Blocks (a mathematics curriculum) and Second Steps (social-emotional curriculum) , (2) extensive individual on-site literacy coaching, (3) emphasis on paraprofessional training, and (4) college credit on-line coursework.

At the time of the writing of the proposal, BPS had a limited number of coaches working in the preschools, with the exception of extensive coaching in limited number of schools supported by an Early Reading First grant. The Boston Ready plan was therefore poised to provide coaching to teachers who did not have it and to provide more hours of coaching to teachers already receiving

this support. As of the grant award, BPS has received additional coaching money from another source and has been able to extend coaching through Early Reading First grant through the second year of the Boston Ready grant. In addition, the original intervention plan included the proposed curricula, OWL and Building Blocks, because BPS was considering the use of these school-wide after limited use through the time of the ECEPD application, thus Boston Ready would be at the forefront of preschool reform for the district. However, BPS has already embarked on extensive implementation of these two curricula. In May 2006, BPS fully implemented the OWL curriculum in all preschool classrooms; and in April, 2007 BPS fully implemented the Building Blocks curriculum.

Second Step, Universal Design, emphasis on paraprofessional training, and college coursework are still completely unique to Boston Ready, but clearly, there is work to be done to differentiate the intervention from existing coaching practices through enhanced coaching schedules and curricular implementation. The on-line coursework, scheduled for Fiscal Year 08 includes coordinated coherent system of PD via a sequence of research-based courses (14 weeks each) culminating in a 12 credit Early Childhood Specialist Certificate. The courses will be structured to ensure that credits will be transferable to an AA, BA, or MA degree.

## Evaluation findings

Comparisons of the Boston Ready intervention and control groups on all areas of the ELLCO

	<u>Boston Ready</u>		<u>Control</u>		<u>t</u>
	<u>Intervention (n=14)</u>		<u>(n=14)</u>		
	M	SD	M	SD	
Literacy Environment Total Score	26.07	5.57	25.14	7.66	0.37
Classroom Environment Subtotal	3.67	.68	3.90	.81	-0.81
Language, Literacy & Curriculum Subtotal	3.34	.47	3.46	.79	-.047
Classroom Observation Total Score (including Presence and Use of Technology variable) <sup>2</sup>	3.07	.57	3.16	.83	-0.32
Classroom Observation Total Score (excluding Presence and Use of Technology variable)	3.51	.55	3.68	.71	-0.72
Literacy Activities Rating Scale Total Score	6.79*	2.23	4.36	2.73	2.58*

\*p<.05

There was no significant difference on classroom observations for the following subscales: Literacy Environment; Classroom Environment; Language, Literacy & Curriculum Subtotal; and Classroom Observation Total (with and without the Presence and Use of Technology variable). However, the

<sup>2</sup> In the ELLCO User's Guide it is recommended by Smith and Dickinson to drop the Presence and Use of Technology variable from the subtotal and total scores because it does not cluster with scores for the other items. In our table we present the Classroom Environment subtotal score without the technology variable and the Classroom Observation total score both ways, with and without the technology variable.

Boston Ready intervention classrooms scored significantly higher on the Literacy Activities Rating Scale Total Score. Cohen's  $d$  was used to calculate the effect size of the difference, which indicated a large effect of being in a Boston Ready classroom (Cohen's  $d = 1.032$ , effect size = 0.46). The Literacy Activities Rating Scale Total Score describes the presence and quality of bookreading and writing activities. The intervention group was more likely to engage in these activities during the observation visits. Although all visits were scheduled in the morning when these activities are more likely to take place, it is possible that teachers in the control classrooms actually did engage in these activities but did so after the observers left. We will review this closely for the second year of the grant (Fiscal Year 08) but also note that there will be additional participating schools and classrooms.

- *State what the evaluation results say about the intervention's effectiveness and how success was defined.*

Only baseline data was collected, therefore we cannot evaluate the program's effectiveness.

- *Describe factors and circumstances that may account for the intervention's effect (or lack thereof). For example, if the comparison group was exposed to similar services provided to the treatment that may diminish the observed differences between the groups.*

Not applicable.

- *If experimental or quasi-experimental evaluation designs were not implemented, provide statistics for other evaluation designs.*

Not applicable.

The ECEPD efficiency measure: *The average cost per participant teacher who achieves year-to-year gains on the ELLCO Literacy Checklist.*

*The program office will use the budget expenditures information from the financial report submitted with your most recent performance report for the cost portion of this measure. Grantees need to provide the following additional information in order to respond fully to this measure. (Grantees in the 2006 cohort should respond to the last two bullets below.)*

- *The number of teachers who participated in the project in both reporting year 2006 and reporting year 2007*

No teachers participated for both 2006 and 2007.

- *The number of teachers who participated in the project in both reporting years 2006 and 2007 with scores on the ELLCO Literacy Checklist both years*

No teachers participated for both 2006 and 2007.

- *The number of teachers whose scores on the ELLCO Literacy Checklist increased from reporting period 2006 to reporting period 2007*

No teachers participated for both 2006 and 2007.

If the same teachers did not participate in the project in reporting year 2006 and reporting year 2007 please provide the following:

- *The number of teachers with pre-test and post-test scores on the ELLCO Literacy Checklist in reporting year 2007*

No teachers had both pre-test and post-test scores for reporting year 2007.

- *The number of teachers whose scores on the ELLCO Literacy Checklist increased from the pre-test to the post-test in reporting year 2007*

No teachers had both pre-test and post-test scores for reporting year 2007.