

## Final report on Early Reading First from the Wellesley Centers for Women at Wellesley College

### Introduction

R2LP is in the final year of the four year grant (year 4, no cost extension year). The intervention worked intensively with programs located in Central Falls, Pawtucket and Providence, RI who serve children from low-income families. In year 4 of the grant, technical assistance and professional development was significantly reduced and sustainability activities were undertaken by R2LP leadership. Researchers at Wellesley College served as the outside evaluation team. The final classroom observation data collection for the evaluation took place in the spring of 2013. Observations of R2LP classrooms were conducted over a one month period from April to May 2013. Observations incorporated the ECERS-R, ELLCO and CLASS to assess classroom quality and the sustainability of best practices in the field of early care and education as promoted through participation in R2LP. To assess sustainability, the observation scores from the spring 2013 were compared to the observation scores obtained during the spring of 2012. To assess teacher growth, scores for the 7 teachers that participated in all years of the intervention were compared and graphed. Results are presented below and discussed.

### Results

The average scores from the spring of 2012 and 2013 of the CLASS observations by the individual dimensions and the composite domains are presented in the Table A.

TABLE A. AVERAGE CLASS SCORES FOR SPRING 2012 AND SPRING 2012

| <b>Dimensions</b>                  | <b>Average in Spring 2012</b> | <b>Average in Spring 2013</b> |
|------------------------------------|-------------------------------|-------------------------------|
| Positive Climate                   | 5.2                           | 6.1                           |
| Negative Climate                   | 1.9                           | 1.4                           |
| Teacher Sensitivity                | 3.7                           | 5.0                           |
| Regard for the Student Perspective | 4.1                           | 5.3                           |
| Behavior Management                | 4.4                           | 5.4                           |
| Productivity                       | 4.4                           | 5.6                           |
| Instructional Learning Formats     | 4.0                           | 5.3                           |
| Concept Development                | 2.5                           | 3.9                           |
| Quality of Feedback                | 2.4                           | 3.9                           |
| Language Modeling                  | 2.8                           | 4.1                           |
| <b>Domains</b>                     |                               |                               |
| Emotional Support                  | 4.8                           | 5.76                          |
| Classroom Organization             | 4.3                           | 5.41                          |
| Instructional Support              | 2.6                           | 3.96                          |

As table A indicates, teacher scores increased in quality on all dimensions (for negative climate a low score is optimal) and all domains. From the spring 2013, teachers' scores for the Emotional Support and Classroom Organization fell within the High Quality range, suggesting optimal classroom practices in

these critical areas of quality. Although not reaching the High Quality range, Instructional Quality did improve significantly ( $p < .05$ ) from the Low Quality range to the Moderate Quality range. Importantly, CLASS scores have been found to be positively and significantly related to children’s outcomes (Pianta, LaParo & Hamre, 2008). The marked increase in scores suggests that teachers are engaging in more optimal classroom practices in the promotion of children’s development. It is also noteworthy that 100% of the classrooms met the intervention goal of achieving an average score of at least 3 on the Classroom Organization domain of the CLASS and 100% of the classrooms met the intervention goal of achieving an average score of at least 3 on the Emotional Support domain of the CLASS. Approximately 83% of classrooms met the intervention goal of achieving an average score of 3 or more on the Instructional Support domain of the CLASS.

Average ELLCO scores from the spring 2012 and 2013 are presented in Table B below.

TABLE B. AVERAGE SCORES FOR ELLCO SPRING 2012 AND SPRING 2013

| <b>ELLCO Sections</b>         | <b>Spring 2012</b> | <b>Spring 2013</b> |
|-------------------------------|--------------------|--------------------|
| Classroom Structure           | 3.93               | 4.25               |
| Curriculum                    | 3.38               | 3.36               |
| Language Environment          | 3.25               | 3.27               |
| Books and Book Reading        | 3.64               | 4.00               |
| Print and Early Writing       | 3.09               | 3.33               |
| <b>Subscales</b>              |                    |                    |
| General Classroom Environment | 12.93              | 13.54              |
| Language and Literacy         | 13.50              | 14.34              |
| <b>Overall Average Score</b>  | 3.49               | 3.69               |

Observations indicated that average quality in the spring 2013 fell between Basic Quality and Strong Quality. For all sections of the ELLCO, the average scores exceeded the Basic benchmark. Average scores fell between Basic and Strong quality for the Curriculum, the Language Environment and Print and Early Writing Sections. Scores for the Books and Book Reading were in the Strong range and the Classroom Structure scores were between the Strong and Exemplary range. Approximately 67% of classroom met the R2LP project goals outlined for the ELLCO.

The ECERS-R was added to the observation battery in the spring of 2012. The ECERS-R was included because of the significant role it plays in the RI QRIS system which all R2LP programs have or will participate in going forward. The ECERS-R is grounded in scientifically-based research regarding developmentally appropriate practices that have been found to significantly and positively promote children’s development and outcomes (Harms, Clifford & Cryer, 2005). Results (see Table C) indicated that average scores for R2LP classrooms on the ECERS-R were 5.06, which falls within the good range. This exceeds RI QRIS standards for programs. Importantly, research indicates that this level of quality on the ECERS-R positively promotes children’s outcomes and school readiness (Harms, Clifford & Cryer, 2005). It is also noteworthy that teachers’ overall average scores on the ECERS-R were significantly higher in the spring 2013 versus spring 2012 ( $p < .01$ ). Additionally, teachers’ scores on the Space and

furnishings, Language and Reasoning, Activities and Interactions and Program Structure subscales were significantly higher. This suggests that not only are teachers sustaining the developmentally appropriate practices in their classrooms they are continuing to increase quality, despite the reduction in mentoring and R2LP professional development activities from spring 2012 to spring 2013 (see chart C).

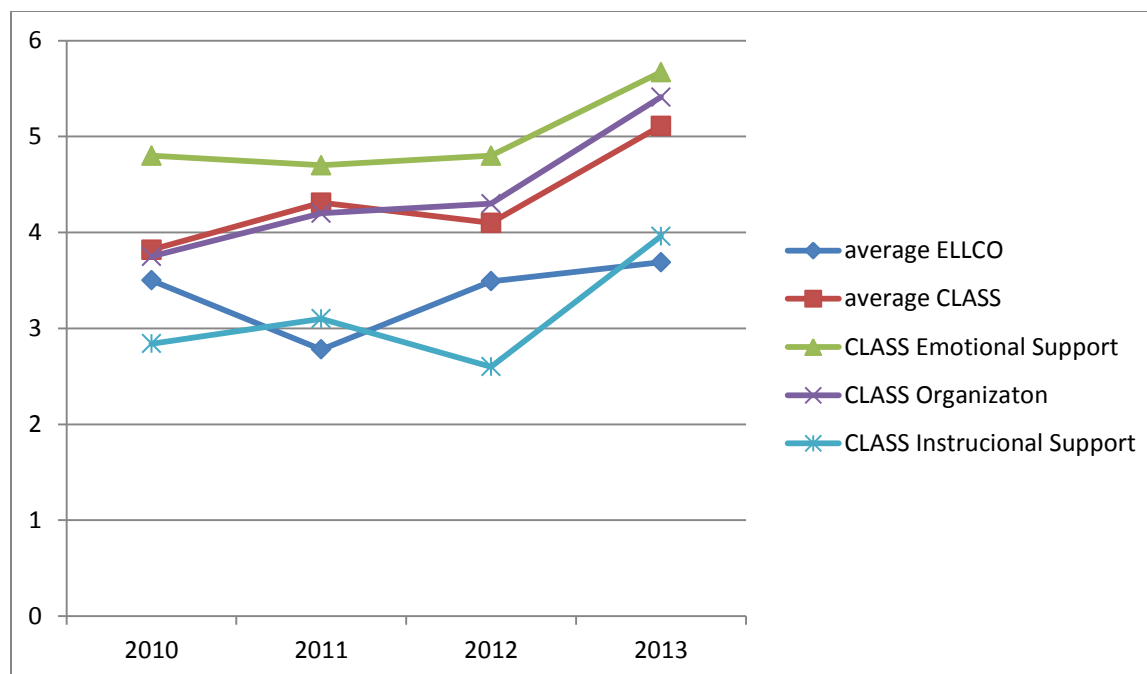
TABLE C. AVERAGE ECERS-R SCORES FOR SPRING 2012 AND SPRING 2013

| <b>ECERS-R</b>                | <b>Spring 2012</b> | <b>Spring 2013</b> |
|-------------------------------|--------------------|--------------------|
| <b>Space and furnishings</b>  | 4.70               | 5.46               |
| <b>Personal Care Routines</b> | 3.54               | 3.85               |
| <b>Language and Reasoning</b> | 4.64               | 5.52               |
| <b>Activities</b>             | 4.06               | 5.01               |
| <b>Interaction</b>            | 4.16               | 5.50               |
| <b>Program Structure</b>      | 4.48               | 5.28               |
| <b>Parents and Staff</b>      | 5.49               | 5.08               |
| <b>Overall Average</b>        | 4.41               | 5.06               |

Noteworthy, teachers scored highest on the Language and Reasoning Subscale and the Interaction Subscale. Research has indicated that these two subscales are particularly salient in promoting child outcomes (Bryant, Maxwell, & Burchinal, 1999; NICHD SEECYD, 1999).

When analyzing average ELLCO and CLASS data over the four years of the grant, a significant ( $p < .05$ ) growth in classroom quality and teacher practice is evident. Chart 1 plots the average scores for the ELLCO, the CLASS and the three domains of the CLASS (Emotional Support, Classroom Organization and Instructional Support) for all participating classrooms across the four years of the grant.

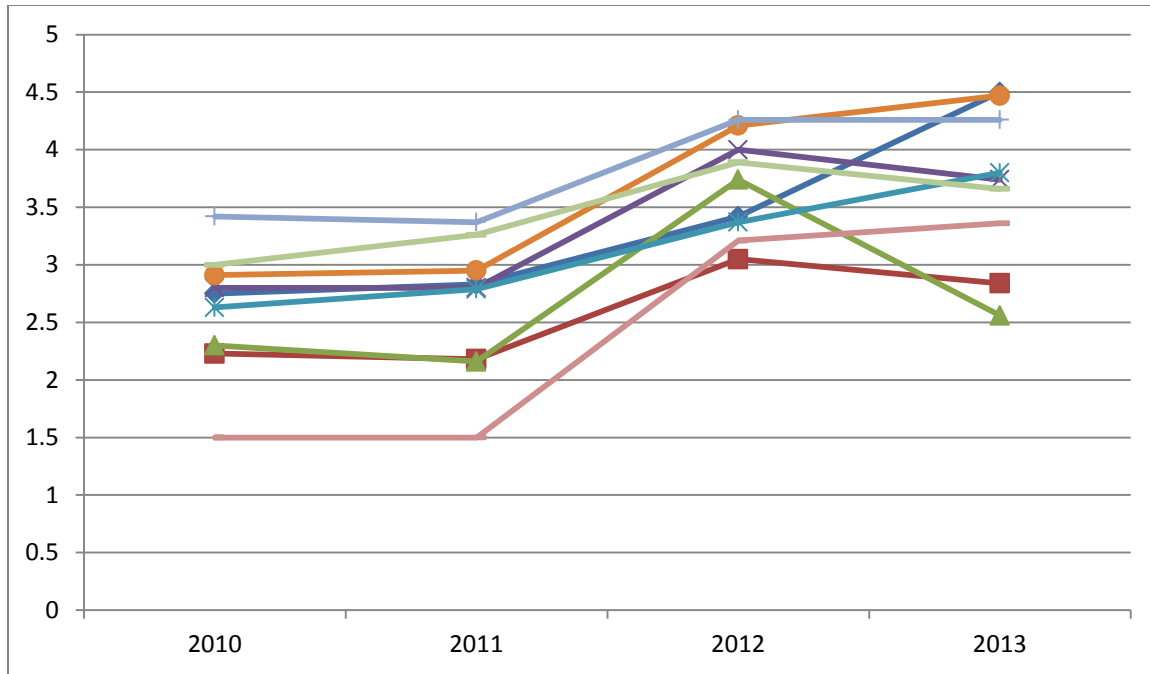
CHART 1. AVERAGE SCORES FOR ELLCO and CLASS OVER GRANT YEARS



As the chart indicates, a significant jump in ELLCO scores is evident between years 2 and 3. A significant jump in CLASS scores is evident between years 3 and 4. This is most likely due to distinctions between the measures in how the tools assess quality. The ELLCO incorporates structural, environment and material standards into multiple items which are more adaptable to change. The CLASS considers only teacher child interaction and does not include material or structural features in its evaluation of quality. As such, the CLASS focuses on behavior which may take longer to change. In general, the chart suggests that teachers' growth is non-linear and that interventions require multiple years to result in significant changes in classroom structure and practices. The chart also highlights the significant impact that R2LP has had in improving classroom quality.

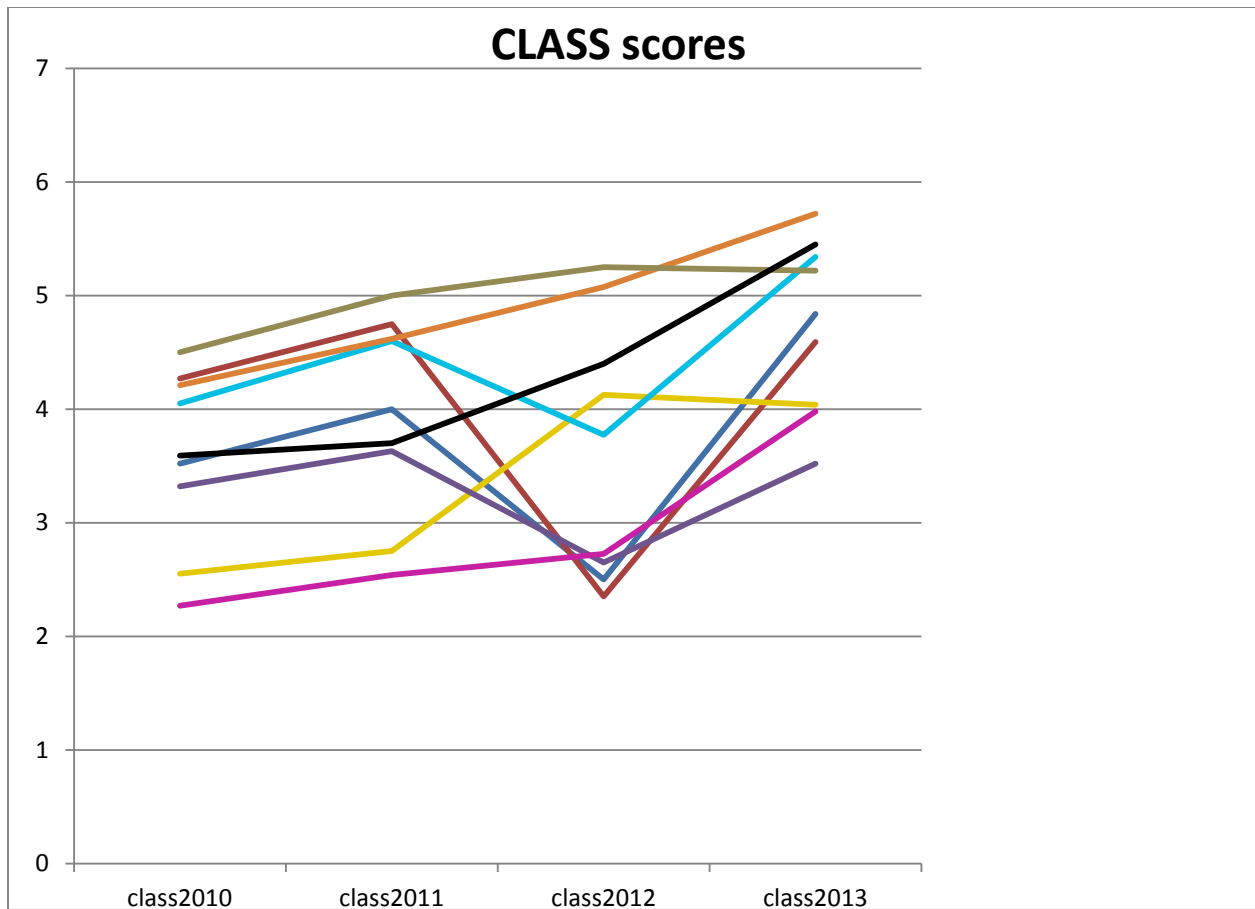
To further explore the growth patterns of the teachers, the average ELLCO scores of the seven teachers that have been part of R2LP all four years of the grant were examined. Chart 2 plots the average scores across time. All seven teachers exhibited significant growth ( $p < .05$ ) over the four years of the grant. Interestingly, regardless of the quality starting point, teachers showed similar patterns of growth on the ELLCO, with significant spikes in ELLCO score evident between years 2 and 3. As noted above, growth was not linear. Very little growth was evident across the first year of the grant, further underscoring the importance of a multi-year intervention. One teacher did exhibit a significant decline in ELLCO scores between Year 3 and 4 but most of the teacher remained relatively stable in ELLCO scores between Years 3 and 4, despite the reduction in R2LP technical assistance and professional development activities. This suggests that teachers are sustaining developmentally appropriate practices that support children's language and literacy growth.

CHART 2. AVERAGE SCORES OVER TIME FOR 7 TEACHERS



Similarly, we examined the CLASS scores across time for the same teachers. Average scores are plotted below in Chart 3.

CHART 3. AVERAGE SCORES FOR CLASS OVER TIME FOR 7 TEACHERS



In general, a spike in CLASS scores is evident between Years 3 and 4. Little growth is exhibited in Year 1 as the teachers began learning the curriculum. Again this suggests that several years of an intervention are needed in order to significantly impact practice. Two teachers did exhibit slightly different patterns of growth, with CLASS scores reaching a plateau between Years 3 and 4. Clearly, this is an area for further exploration with a larger sample size. However, this does underscore the importance of a multi-year intervention. Importantly, all seven teachers did exhibit significant growth over the four years of the project, even those teachers whose scores leveled between Years 3 and 4.

As another step in the evaluation, teachers were asked to complete a survey regarding their knowledge of preschool children's development and classroom practices (Roberts, Robeson & Marshall, in process). R2LP teacher responses were compared to responses from a control group of teachers who also teach urban, low-income preschool aged children. Results indicated that R2LP teachers recorded a significantly higher knowledge of preschool children's development ( $p < .01$ ) in comparison to the control group of teachers. This is a significant finding given that teachers' knowledge of child development has been found to significantly influence classroom practice (National Research Council, 2000).

## Summary

To summarize, classrooms in R2LP exhibited significant increases in quality during the four years of the grant. Importantly, the data suggests that despite the reduction in technical assistance and training between Year 3 and Year 4, programs appear to be either sustaining quality as measured by the ELLCO or continuing to increase in quality as measured by the CLASS and ECERS-R. Overall average scores suggest that teachers are engaging in developmentally appropriate practices and programs are exhibiting classroom environments that promote children's outcomes. Also, R2LP teachers appear to have a stronger understanding of preschool children's development when compared to a similar group of non-R2LP teachers. Data also underscores the non-linear nature of professional growth and the need for multiple years to effectively implement an intervention, positively impact classroom quality and promote sustainable changes in classroom practice.

## References

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