

Who Benefits and How: Quantifying Teacher Change from Coaching

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Introduction

- Early Reading First (ERF) is a federal grant program housed in the U.S. Department of Education. ERF “supports the development of early childhood centers of excellence that focus on all areas of development, especially on the early language, cognitive, and pre-reading skills that prepare children for continued school success and that serve primarily children from low-income families.” (www.earlyreadingfirst.gov)
- Developing Early Language and Literacy in Danville (DELL-D) is an ERF project located in a small city in east central Illinois. During Year 2 of this three year project, the University of Illinois at Urbana-Champaign, had four community partners in Danville:
 - East Central Illinois Community Action Agency (Head Start)
 - Danville School District #118
 - Danville Area community College Child Development Center
 - Center for Children’s Services/Early Learning Center
- In ERF projects, intensive, on-going professional development is key to bringing about change in classroom practice. In the DELL-D Project, the approach to professional development includes the following components:
 - 50 hours of training per year provided by DELL-D staff and invited experts
 - Topics (Years 1 and 2): ERF goals and requirements, dimensions of quality in learning environments, introduction to and practice of key scientifically-based reading research skills, features of and fidelity to evidence-based emergent literacy curriculum
 - Budget for classroom materials and furnishings
 - Weekly, in-classroom coaching visits



Kristen Hall (left) working with her coach, Dot Gee (right).

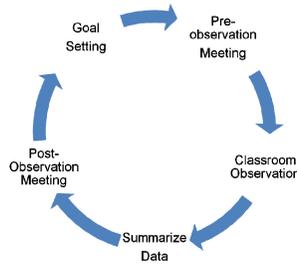
Statement of the Problem

Coaching is an adult learning strategy that builds capacity within a person to improve existing skills, develop new skills, and gain a deeper understanding of practice in current and future situations (Hanft, Rush, & Shelden, 2004).

A recent study (Neumann & Cunningham, 2009) indicates that coaching may be a key ingredient in helping teachers translate what is heard in professional development workshops into practice in their classrooms.

Although coaching is being used in early childhood settings, coaching approaches can vary widely and there is little research on particular models (Zaslow, 2009).

In the DELL-D Project, literacy coaches were provided training and ongoing support in a model based on a clinical supervision approach first described by Joyce and Showers (1996). Coaches and teachers worked together through a cycle of steps that connected one weekly visit to the next. Goal setting was based on teachers’ self-identified needs, using information from training events and coaching data taken during classroom observations. Coaches were given training in the model and provided on-going support in the form of meetings and side-by-side visits with a “coach for the coaches.” Coaches attended all teacher institutes.



Scores on a measure of classroom quality as a whole improved significantly from pre- to post- assessment in Year 1, showing an average gain score of +10.83 points (p=.005). There was a non-significant negative correlation (r = -.43, n.s.) between beginning classroom scores and amount of gain, indicating that teachers who were the furthest behind gained the most. However, teachers’ scores appeared to plateau, with an average post-assessment score of 83.17points or 67% of the possible number of points (124).

Based on the above, the coaching model was re-examined and changed for Year 2, as described below.

The current analysis is an effort to understand how the coaching model used in Year 2 of this project contributed to change in the quality of classroom practice and for whom.

Research Questions

- How did changes in the coaching model affect Year 2 scores on a measure of classroom quality as compared to Year 1?
- To what extent are scores for beginning-of-year status predictive of amount of change during the year?
- What characteristics of teachers and programs were associated with status (end score) and growth (gain score) on a measure of classroom quality?

Methods

Sample

Included 22 teachers/assistants, representing 12 classrooms across four community partners

- Educational level**
 - 4.5% High School diploma/GED
 - 59.1% Associates Degree or some college courses
 - 36.3% Bachelors’ Degree or higher
- Teacher Certification**
 - 81.8% did not hold teacher certification
 - 18.2% held certification in early childhood education
- Ethnicity**
 - 31.8% African American
 - 68.2% Caucasian

Instrumentation

- Early Language and Literacy Classroom Observation Toolkit* (ELLCO) (Smith & Dickinson, 2002) required by Early Reading First as a measure of the quality of the general classroom environment and early literacy opportunities, used in Years 1 and 2.
- 47 items, scored by observation or interview, organized into 3 subscales.
- Total classroom score calculated by converting item scores into points and summing the points across subscales.
- External observers trained to reliability on the ELLCO Toolkit to conduct pre-(fall) and post-(spring) observations in each classroom during Years 1 and 2.

Procedures

Year 2 DELL-D Coaching Model

Three changes were made to the model of coaching used in Year 1 of this project.

- A summary instrument, CRIS (Classroom Recognition and Incentive System), was introduced to guide and prioritize long and short term goal setting, track and provide incentive for progress, and recognize improvement across three levels of performance: Bronze, Silver, and Gold.
- Data from coaching was used to inform training activities.
- Sufficient uninterrupted time for the post-observation meeting was given administrative support

		CRIS PROGRESS CHART (REVISED 10/30/09)			
		ELLCO Sections	Bronze Classroom	Silver Classroom	Gold Classroom
FIDELITY	GCE	All 7 items at 3 or above (minimum of 21/35 pts.)	All 7 items at 4 or above (minimum of 28/35 pts.)	Remaining items at 3 or above (minimum of 26/35 pts.)	7 items at 5 (minimum total of 31/35 pts.)
	LLE	All 12 items at 3 or above (minimum of 36/60 points)	All 12 items at 4 or above (minimum of 48/60 pts.)	Remaining items at 3 or above (minimum of 45/60 pts.)	12 items at 5 (minimum of 60/60 pts.)
	Total	57/95 points	69/95 points	69/95 points	84/95 points
	All segments of TRIPLES weekly theme plan	Minimum of 22/29 curriculum segments activities for 2 weeks (approx. 2 mos.) and implemented	Minimum of 22/29 curriculum segments activities for 2 weeks (approx. 2 mos.) and implemented	Minimum of 22/29 curriculum segments activities for 2 weeks (approx. 2 mos.) and implemented	Minimum of 22/29 curriculum segments activities for 2 weeks (approx. 2 mos.) and implemented
TEACHING INTERACTIONS	Book Reading	Extra book reading included a minimum of 3 days/week	Extra book reading included a minimum of 3 days/week, with repeated reading	Extra book reading included a minimum of 3 days/week, with repeated reading	Extra book reading included a minimum of 3 days/week, with repeated reading
	Teaching Strategies Checklists	80% of items on each of Circle-Time, Story-Time, Activity-Time (small group) (2 consecutive observations)	70% of items on each of Circle-Time, Story-Time, Activity-Time & Center checklists (2 consecutive observations)	60% of items on each of Circle-Time, Story-Time, Activity-Time & Center checklists (2 consecutive observations)	50% of items on each of Circle-Time, Story-Time, Activity-Time & Center checklists (2 consecutive observations)
	Curriculum Integration (Oreas's Curriculum framework)	At least 2 literacy centers (e.g., writing, story, computer, learning) extend on theme and described to children (consistent for 4 weeks)	At least 2 literacy and 1 additional center extend on theme (extended play, blocks) and include literacy focus described to children (consistent for 3 weeks)	At least 2 literacy and 1 additional center extend on theme (extended play, blocks) and include literacy focus described to children (consistent for 2 weeks)	At least 1 literacy center extend on theme and include literacy focus described to children (consistent for 2 weeks)
	Making Curriculum Decisions	Complete CRIS on 3 "average" children by end of day. Include reading, large group for 2 children scoring < 90 on PPVT.	Complete CRIS on 300s on all children scoring < 90 on PPVT & on 3 "average" children by end of day. Use data in planning (e.g., transitions or embedding SBRR skills, 2 units)	Complete CRIS on 300s on all children scoring < 90 on PPVT & on 3 "average" children by end of day. Use data in planning (e.g., to provide SBRR skill focus in non-Thropas themes including small group, 2 units)	Complete CRIS on 300s on all children by end of day. Use data in planning (e.g., to provide SBRR skill focus in non-Thropas themes including small group, 2 units)

Coaches were trained prior to the beginning of Year 2 and were given on-going support in the form of regular meetings and side-by-side visits with “a coach for the coaches”.

All classrooms received approximately the same number of coaching visits during Year 2.

Analysis

Changes in ELLCO scores were analyzed using a paired T-test measure for correlated samples for each of the two years. In Addition, Pearson correlation coefficients were calculated to determine the relationship between beginning scores and amount of gain.

Results

Question #1: How did changes in the coaching model, made during Year 2, affect teachers’ scores on a measure of classroom quality?

Year 2 ELLCO Toolkit Score Summary (N = 12)

Date of Observation	Average Score	Range of Scores	Average Gain Score	Range Gain Scores
Year 2				
Fall 2008	89.66	63-108	--	--
Spring 2009	105.33	91-117	15.17 points	4-35

While teachers’ scores as a whole improved significantly from pre- to post assessment in both Years 1 and 2, the growth during Year 2 was larger than in Year 1, with the average gain score in Year 2 of 15.17 points (p=.000).

Question #2: To what extent are scores for beginning-of-year status predictive of amount of change during the year?

- A significant negative correlation (r = -.67, p = .02) was found between beginning scores and amount of gain, indicating that classrooms who were furthest behind again made the most gain.
- However, gains made by the lowest scoring classrooms were larger than in Year 1. Despite this, the relative rankings remained largely the same.

Question #3: What characteristics of teachers and programs are associated with status (end score) and growth (gain score) in classroom quality?

- The highest-ranking classrooms were predominantly taught by teachers holding a master’s degree and certification, on average had more than 5 years experience in the current position, and were teaching in public school classrooms.
- Classrooms in the low ranking group were predominately taught by teachers holding an associates’ degree in early childhood or a bachelors’ degree (non-certified), on average had more than 5 years experience in the current position, and were teaching in child care or Head Start centers. These teachers were given administrative support to ensure time for the post-observation meeting.

Discussion

- Change in quality of classroom practice in relation to the teaching of early literacy skills through intensive professional development is a goal of Early Reading First.
- Analysis of data at the end of Year 2 suggests that the changes made in the coaching model may have contributed to significant improvement in classroom quality overall, and especially in lower performing classrooms. These changes included a) using coaching data to inform training activities, b) providing a structure to guide goal setting and recognize growth (CRIS), and c) ensuring sufficient time for the post-observation meeting.
- From the perspective of the project, the changes made in Year 2 made the coaching model more responsive to the diverse characteristics of teachers and programs without changing its essential components and cycle. From the perspective of the teachers, changes made in Year 2 may have added transparency, incentive, and recognition to the change process and facilitated their growth.

Implications

- There appears to be agreement in the literature that coaching is a promising component of an integrated, on-going approach to professional development. However there is little research on particular models of coaching in early childhood settings.
- The current analysis is limited but can offer insight into features of a model of coaching that, when adapted to meet diverse teacher and program characteristics, may be related to significant teacher growth.

Presented by



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