

Mainstream ESL Instructional Coaching: A Repeated Measures Replication Study

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This paper describes an ESL instructional coaching model for mainstream teachers and uses a replication approach to compare the instructional coaching outcomes of urban teachers in Indiana and California to determine if the observed pattern of development can be generalized to urban elementary educators. Teachers ($N = 35$) participated in a 30-hour workshop and seven individual coaching sessions across a school year. Findings demonstrate ESL instructional coaching led to statistically significant change in teacher pedagogy, a shared pattern of teacher development, and subtle group differences in reaching fidelity to the model. Suggestions for improving the ESL coaching model for urban mainstream teachers are presented.

Although English Language Learners (ELLs) spend a majority of their educational lives in mainstream classrooms, English-as-a-Second-Language (ESL) scholars have not specifically developed a professional development strategy for mainstream educators. Recently, Teemant, Wink, and Tyra (2011) proposed an ESL instructional coaching model for mainstream educators, with a dual focus on (a) changing the organization of classrooms from whole class to small group configurations, and (b) increasing teacher use of five sociocultural principles of learning.

Researchers affiliated with the Center for Research on Education, Diversity, and Excellence (CREDE) articulated the sociocultural Five Standards instructional model (Tharp, Estrada, Dalton, & Yamauchi, 2000). The Five Standards are: (a) Joint Productive Activity—a teacher and small group of students produce a shared product together; (b) Language and Literacy Development—employing sustained opportunities to read, write, or speak with assistance; (c) Contextualization—activating students' knowledge and skills from home, school, and community to learn new content; (d) Challenging Activities—defining expectations, and then providing assistance and feedback to students; and (e) Instructional Conversation—engaging a small group of students in a sustained, student-dominated, goal-directed academic conversation that questions rationales and assists learning. These Five Standards when combined with use of small group activity centers—a teacher center and multiple independent students centers—are the essential

features of the Five Standards instructional model. Teemant et al., (2011) and Teemant (2011) reported positive evidence of teacher change in use of model as a result of instructional coaching. This model has also been positively connected to increased student achievement (e.g., Doherty & Hilberg, 2007; Doherty, Hilberg, Epaloose, & Tharp, 2002).

The purpose of this replication study is to compare the longitudinal instructional coaching outcomes of two groups of urban elementary teachers in different states (i.e., California and Indiana) to determine if the pattern of development observed can be generalized to be the expected pattern of development. Repeating a study, in this case with different subjects in a different location, increases external validity, reliability, and the generalizability of results (Morrison, Matuszek, & Self, 2010). The research question guiding this replication study is: Does the pattern of implementation for the Five Standards, as measured by individual standard and total score, vary based on teacher group across seven cycles of coaching?

INSTRUCTIONAL COACHING AS A TYPE OF COACHING

Coaching is considered one of the most promising methods of helping teachers to change, improve, and sustain new instructional practices over time (Knight, 2009a; Joyce & Showers, 2002; Sparks & Hirsch, 1997; Teemant, 2011). Job-embedded instructional coaching is a special niche within educational coaching whose signature purpose is to support teachers in implementing effective practices that improve student learning by focusing on management, content, instruction, or assessment (Knight, 2009b). Instructional coaching builds on another form of coaching developed by Costa and Garmston (2002) called cognitive coaching. Stober and Grant (2006) explain, “Cognitive coaching enhances the ability of the person being coached to examine their patterns of thinking and behavior, and to reconsider the underlying assumptions that precede actions” (p. 109). The instructional coaching process is, therefore, one of mediation through dialogue, reflective inquiry, and reciprocity of learning between coach and teacher (Costa & Garmston, 2002; Hilberg, Doherty, & Reveles, 2004). The instructional coach is a collaborator and, at times, a teacher-mentor, but not an evaluator (Lipton & Wellman, 2003).

The American Institutes for Research (2005) describes instructional coaching as taking four forms: technical, problem solving, reflective, or team building. Technical coaching focuses on assisting teachers to implement and sustain effective teaching practices. Coaching as problem-solving uses reflective questioning and collaboration to assist a teacher in addressing self-identified problems. Reflective coaching relies on an inquiry-based learning process that gives teachers time and space to think deeply about instructional challenges (Poglinco et al., 2003). Coaching can also function as a vehicle

for team building through school-wide conversations about shared goals, beliefs and commitments for student learning (Hasbrouck & Denton, 2005).

Another complementary coaching model to instructional coaching is used in corporate settings: Evidence- or performance-based coaching. Grant (2006) defined performance-based coaching as “integrative goal-directed self-regulation” (p. 153), in which the coach assists the client to set goals; develop a plan of action; begin action; monitor their performance; evaluate their performance data based on a given standard; and then change their actions to improve their performance or progress toward meeting their ultimate goals.

In summary, multiple theoretical perspectives, goals, and practical considerations influence the development of an instructional coaching approach. Next, we outline the defining features and processes associated with the Five Standards instructional coaching model.

FIVE STANDARDS INSTRUCTIONAL COACHING MODEL: CHARACTERISTICS AND PROCESS

The Five Standards instructional coaching model represents a single theoretical perspective and a combination of several types of coaching. Theoretically, the Five Standards instructional model for teaching as well as the instructional coaching model for working with teachers is grounded in sociocultural perspectives (Tharp & Gallimore, 1988; Vygotsky, 1978).

Sociocultural theory argues that learning—and by extension learning to teach—is seen as a developmental process that takes place as learners engage in everyday tasks with others within the home, classroom, school, or community culture. Optimal learning occurs when a person with more knowledge intentionally assists an individual’s performance within a real-life context of learning. Likewise, instructional coaching provides teachers with assistance from an expert other in the real life context of their classrooms.

Defining Characteristics of the Model

Five characteristics define the Five Standards instructional coaching model. First, the model is performance-based. It relies on a valid and reliable observation instrument called the Standards Performance Continuum (SPC; Doherty et al., 2002). Figure 1 contains the SPC. Each level of the continuum is a potential performance target in the coaching process depending on where a teacher is in their use of sociocultural practices. Numerous studies have used the SPC to measure teacher fidelity to the Five Standards instructional model (Doherty et al., 2002; Teemant et al., 2011; Teemant, 2011). Second, it is evidence-based. One key function of the instructional coach is to

gather various types of evidence or data during a classroom observation to document instructional choices and the impact on student learning. Third, it is also a technical form of coaching because of its focus on promoting teacher use of research-based instructional practices: The Five Standards. Fourth, its primary goal is to mediate both teacher thinking and learning through cycles of reflective inquiry, dialogue, problem solving, collaboration, and teaching action. Fifth, the Five Standards instructional coaching model is distinct from other types of coaching because it intentionally uses a sociocultural perspective on learning to define (a) performance targets for teaching and (b) coaching processes for learning. Therefore, a high quality coaching session employs all of the Five Standards in the interaction between the coach and teacher. The ultimate goal of instructional coaching is to move teachers along a performance continuum from assisted and guided practice to unassisted, competent, and independent implementation of the Five Standards instructional model (Tharp & Gallimore, 1988).

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING	INTEGRATING
General Definition:	The standard is not observed.	One or more elements of the standard are enacted.	The teacher designs and enacts activities that demonstrate a partial enactment of the standard.	The teacher designs, enacts, and assists in activities that demonstrate a complete enactment of the standard.	The teacher designs, enacts, and assists in activities that demonstrate skillful integration of multiple standards simultaneously.
Joint Productive Activity Teacher and Students Producing Together	Students work independently of one another.	Students are seated with a partner or group, AND (a) collaborate or assist one another, OR (b) are instructed in how to work in groups, OR (c) contribute individual work, not requiring collaboration, to a joint product.	The teacher and students collaborate on a joint product in a whole-class setting, OR students collaborate on a joint product in pairs or small groups.	The teacher and a small group of students collaborate on a joint product.	The teacher designs, enacts, and collaborates in joint productive activities that demonstrate skillful integration of multiple standards simultaneously.

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING	INTEGRATING
Language & Literacy Development Developing Language and Literacy Across the Curriculum	Instruction is dominated by teacher talk.	(a) The teacher explicitly models appropriate language; OR (b) students engage in brief, repetitive, or drill-like reading, writing, or speaking activities; OR (c) students engage in social talk while working.	The teacher provides structured opportunities for academic language development in sustained reading, writing or speaking activities. (Sustained means at least 10 minutes. If it is a whole class arrangement, then more than 50% of the students are participating. No turn taking.)	The teacher designs and enacts instructional activities that generate language expression and development of 'content vocabulary,' AND assists student language use or literacy development through questioning, rephrasing, or modeling.	The teacher designs, enacts, and assists in language development activities that demonstrate skillful integration of multiple standards simultaneously.
Contextualization Making Meaning – Connecting School to Students' Lives	New information is presented in an abstract, disconnected manner.	The teacher (a) includes some aspect of students' everyday experience in instruction, OR (b) connects classroom activities by theme or builds on the current unit of instruction, OR (c) includes parents or community members in activities or instruction, OR (d) connects student comments to content concepts.	The teacher makes incidental connections between students' prior experience/knowledge from home, school, or community and the new activity/academic concepts.	The teacher integrates the new activity/academic concepts with students' prior knowledge from home, school, or community to connect everyday and schooled concepts.	The teacher designs, enacts, and assists in contextualized activities that demonstrate skillful integration of multiple standards simultaneously.

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING	INTEGRATING
Challenging Activities Teaching Complex Thinking	Activities rely on repetition, recall, or duplication to produce factual or procedural information.	The teacher (a) accommodates students' varied ability levels, OR (b) sets and presents quality standards for student performance, OR (c) provides students with feedback on their performance.	The teacher designs and enacts 'challenging activities' that connect instructional elements to academic content OR advance student understanding to more complex levels.	The teacher designs and enacts challenging activities with clear standards/expectations and performance feedback, AND assists the development of more complex thinking.	The teacher designs, enacts, and assists in challenging activities that demonstrate skillful integration of multiple standards simultaneously.
Instructional Conversation Teaching Through Conversation	Lecture or whole-class instruction predominates.	With individuals or small groups of students, the teacher (a) responds in ways that are comfortable for students, OR (b) uses questioning, listening or rephrasing to elicit student talk, OR (c) converses on a nonacademic topic.	The teacher converses with a small group of students on an academic topic AND elicits student talk with questioning, listening, rephrasing, or modeling.	The teacher: designs and enacts an instructional conversation (IC) with a clear academic goal; listens carefully to assess and assist student understanding; AND questions students on their views, judgments, or rationales. Student talk occurs at higher rates than teacher talk.	The teacher designs, enacts, and assists in instructional conversations that demonstrate skillful integration of multiple standards simultaneously.

Figure 1. Standards Performance Continuum: A Classroom Observation Rubric.

The Five Standards Coaching Process

The Five Standards instructional coaching model engages the coach and teacher collaboratively in reflective thinking activities. These activities include: (a) identifying instructional goals, using the Five Standards as performance targets; (b) identifying unhelpful behaviors (e.g., cognitions, emotions or actions) that get in the way of effective teaching; (c) considering other perspectives and behaviors that would produce more desirable results congruent with sociocultural instructional goals; (d) planning action steps to realize goals; and (e) utilizing an accountability process that increases the likelihood that desired outcomes are achieved. This model builds teacher

capacity and self-efficacy through goal-setting, observational feedback, reflection, collaboration, and action planning.

The Five Standards instructional coaching model is comprised of four basic steps: (a) prepare learning experiences (pre-observation planning conversation); (b) collect data from student learning activity (lesson observation); (c) examine data and mediate learning (post-observation reflective conversation); and (d) create a plan for new action (post-observation reflective conversation). Each step will be discussed briefly.

Step 1: Prepare learning experiences. The coaching cycle begins with preparation. The teacher and coach meet to discuss and co-plan a lesson that will be observed. The coach's role is to engage the teacher in thoughtful planning. The teacher identifies learning goals for the students and a specific focus and goal for the coaching session. The teacher's lesson planning and goals are all situated within the context of the Five Standards, which serve as performance targets and a framework for defining "success" in the teacher's implementation of student learning activities. The teacher and coach collaborate to strengthen the teacher's initial plan to ensure a robust learning experience for students that reflects the Five Standards. A planning conversation is about 30 minutes and can occur several days or a few hours prior to the lesson observation. Unlike other coaching models, the Five Standards approach views the preparation phase as critical in the learning process, creating the opportunity for dialogue, collaboration, problem solving, and mediated learning (Hilberg et al., 2004).

Step 2: Collect observation data from student learning activities. Data collection occurs during a 45-minute observation of the planned lesson. The coach captures as much teacher and student talk, interaction, and behavior as possible, with a particular focus on (a) the teacher's stated focus for coaching feedback, and (b) evidence of student learning and Five Standards use. The types and frequencies of student/teacher and student/student interaction patterns are captured as evidence, as well as the levels of complex thinking, student engagement, and any factors influencing the learning community. The coach may also take note of student work, evidence of equity, and classroom management systems. The role of the coach in this phase is one of data collector, providing the rich data sources for later reflection.

Step 3: Examine data and mediate learning. The coach and teacher meet for a 30-minute post-observation coaching conversation to discuss the observation evidence. The coach objectively and without judgments presents the observation data to engage the teacher in a reflective dialogue about how the data relates to instructional goals, student learning, and the teacher's request for coaching feedback. This reflective dialogue is an instructional conversation: goal-directed, dialogic, co-constructed, and mediated through meaningful assistance (Tharp et al., 2000). The dialogue may result in re-

enforcement, reflective questioning, cognitive structuring, or direct teaching, when solicited by the teacher, as forms of assistance.

Step 4: Create a plan to take new action. From this reflective dialogue around evidence, the coach and teacher co-create a new action plan for continued learning. The coach enlists the teacher in committing to make a change in practice related to implementing the Five Standards instructional model, which supports a continuous improvement process. Goals vary depending on teacher comfort and student readiness. Goals may focus on one of the Five Standards, classroom organization, classroom management, or elicitation of more student talk. The coach often facilitates a dialogue to address internal fears, limiting beliefs, assumptions, or perceived barriers to implementing change in teaching practice. Coaches provide a safe and trusting space for teachers to examine their practice (via the data) and take attainable steps toward transformation.

In summary, the Five Standards instructional coaching model is grounded in best practices for coaching as well as sociocultural principles for teaching and learning. The ultimate goal of the instructional coaching process is to develop and sustain teacher capacity to implement the Five Standards instructional model with fidelity, which results in improved learning potential for mainstreamed ELLs.

METHODS

This replication study compares instructional coaching outcomes from two different groups of urban elementary teachers using a repeated measures design to determine if patterns of growth can be generalized in relationship to each of the Five Standards and total score. A brief description of the teachers, schools, instrument, and analyses follows.

The Teachers and Settings

Teachers for this study come from two states: California's Central Valley (Teemant et al., 2011) and Indiana's urban center (Teemant, 2011). Teachers who completed seven coaching cycles from these previous studies were included in this replication study. Thirty-five teachers (2 male) from three elementary schools (CA School 1= 16 teachers; CA Bilingual School 2= 5 teachers; IN School 3 = 14) were included. Teachers were experienced (3 to 27 years), ethnically diverse (67% White, 19% Hispanic, 8% Asian, and 6% Black), and represented each grade level: K-1 (25%), 2-3 (31%), 4-6 (22%), and one mixed grade 4/5 classes (3%). Mainstream teachers (72%), ESL teachers (22%), and Specialists (6%) were represented. Each school had high populations of Hispanic students (CA School 1 over 70%; CA School 2 over 84%; IN School 3 over 75%) and smaller populations of White, African

American, Asian, American Indian, Filipino, and Pacific Islander students. The schools also have high numbers of ELLs (2007-08: School 1= 60%; School 2= 67%; 2008-09: School 3= 35%) and students on free or reduced lunch (in 2007-08: School 1= 79%; School 2= 54%; School 3= 95%).

The Teacher Performance Measure

Figure 1 contains the SPC, which was used as the quantitative measure of teacher use of the Five Standards instructional model (Doherty et al., 2002). Each standard is measured along a 5-point continuum, where 0= not observed; 1= emerging (some element present); 2= developing (partial enactment); 3= enacting, meaning the standard is fully enacted as intended; and 4= integrating, which can only be achieved when no less than three of the five standards are fully enacted in a single activity. The highest total score possible is 20. Small group configurations result in higher SPC scores. Hilberg (Personal communication, December 12, 2006) provided four value ranges for determining fidelity of implementation: 1) emerging < 7.50; 2) developing= 7.50 – 12.49; 3) enacting= 12.50 – 17.49; and 4) integrating= 17.50 – 20.00. The three experienced instructional coaches (Coach 1= 5 teachers; Coach 2= 5 teachers; Coach 3= 25) each have six years of experience using the SPC and have established high rater reliability: Joint Productivity = 1.00; Language/Literacy = .84; Contextualization = .98; Challenging Activities = .97; Instructional Conversation = .96.

Analysis

Data analysis occurred in two steps. First, frequencies, means, and standard deviations were calculated for each of the Five Standards and Total Score. Second, multiple two-way repeated measures ANOVAs were conducted to reveal significant ($p < .05$) analysis of (a) whether teacher growth by coaching cycle was significant (within-subject findings), and (b) whether there were any replication group differences (between-group findings) by coaching cycle. The pattern of development reveals the extent to which instructional coaching assists development. The within-subject analyses demonstrate how each coaching cycle influenced teachers' growth as measured by (a) total score and (b) individual standard. Tests of within-subjects contrasts also identify significant growth trends (e.g., linear, a single bend, or fluctuating) in the data across cycles. Between-group differences demonstrate if the pattern of development and growth trends varied by replication group (i.e., CA and IN teachers) across cycles. The Wilks' Lambda value, F statistic, and a partial eta squared value, which captures the size of the effect, are reported. Cohen (1988) defined an effect sizes as small (< .20), medium (>.20 and < .79) and large (> .80).

FINDINGS

The replication research question is answered in this section on the generalizability of teachers' pattern of growth. The within-subjects (teacher growth) findings are presented first, followed by between-group differences (pattern and trend) in Five Standards and total score.

Teacher Growth by Coaching Cycle

Table 1 presents the means and standard deviations for each standard and total score by coaching cycle. Teacher use of each standard consistently increased from coaching cycle one to six, with the exception of Language/Literacy and Contextualization where the highest implementation occurred at cycle five. For all standards, cycle seven resulted in either a plateau (i.e., for Language/Literacy) or a slight decline in implementation. Only Contextualization showed a decline for both cycles six and seven from its cycle five peak. The standard deviations (SDs) show increasing variation among teachers from cycle one to three, with cycle three showing the greatest variation for all standards and total score. Teachers implemented Contextualization and the Instructional Conversation with the greatest variation across coaching cycles. Teachers achieved an enacting level of fidelity (i.e., $M = 12.50 < 17.49$) by coaching cycle seven ($M = 15.89$; $SD = 4.31$) rather than the integrating level ($M > 17.50$).

Table 1
Means and Standard Deviations for Five Standards by Coaching Cycle

Five Standards		1	2	3	4	5	6	7
Joint Productivity	<i>M</i>	1.75	2.46	2.92	3.39	3.44	3.56	3.44
	<i>SD</i>	.81	.92	1.16	.77	.97	.73	.84
Language/Literacy	<i>M</i>	1.83	2.23	2.97	3.42	3.50	3.42	3.44
	<i>SD</i>	.65	.97	1.03	.73	.94	.84	.91
Contextualization	<i>M</i>	1.50	2.06	2.50	2.94	3.17	3.25	3.11
	<i>SD</i>	.65	1.08	1.16	.98	1.08	1.05	1.04
Challenging Activities	<i>M</i>	1.61	2.03	2.50	2.94	3.17	3.25	3.11
	<i>SD</i>	.55	.82	1.16	.98	1.08	1.05	1.04
*Instructional Conversation	<i>M</i>	1.00	1.43	1.97	2.61	2.72	3.09	2.92
	<i>SD</i>	.86	1.04	1.38	1.23	1.37	1.20	1.13
Total Score	<i>M</i>	7.69	10.20	12.97	15.22	16.19	16.56	15.89
	<i>SD</i>	2.61	4.26	5.69	4.22	4.91	4.21	4.31

Note: Total N = 35; *Instructional Conversation n = 34.

Considering teachers’ growth across coaching cycles in general, the within-subjects findings revealed, as in previous studies (Teemant et al., 2011; Teemant 2011), that teacher growth in use of the Five Standards individually and for total score by coaching cycle was statistically significant with large effect sizes: (a) Joint Productivity Wilks’ Lambda = 0.14, $F(6, 28) = 28.45, p < .001$, partial eta-squared .86; (b) Language/Literacy Wilks’ Lambda = 0.11, $F(6, 28) = 39.54, p < .001$, partial eta-squared .89; (c) Contextualization Wilks’ Lambda = 0.18, $F(6, 28) = 21.35, p < .001$, partial eta-squared .82; (d) Challenging Activities Wilks’ Lambda = 0.11, $F(6, 28) = 38.48, p < .001$, partial eta-squared .89; (e) Instructional Conversation Wilks’ Lambda = 0.20, $F(6, 27) = 18.42, p < .001$, partial eta-squared .80; (f) Total Score Wilks’ Lambda = 0.11, $F(6, 28) = 38.48, p < .001$, partial eta-squared .89. This means teachers significantly increased their use of the Five Standards as a result of instructional coaching, and the large effect sizes means the instructional coaching worked well in promoting teacher growth.

Figure 2 provides a marked line graph of the level of implementation for each standard by cycle. This graph demonstrates further that the standards of Joint Productivity and Language/Literacy are implemented at the highest level across cycles. Contextualization and Challenging Activities share roughly equivalent mid-range patterns of development, with the Instructional Conversation being implemented least by teachers across coaching cycles.

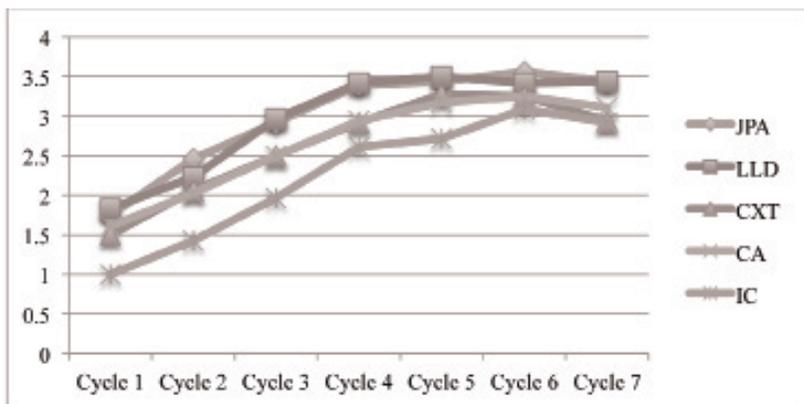


Figure 2. Marked line graph of each standard in contrast to each other.

The within-subject data also revealed that teacher growth had both significant linear and quadratic—or single bend—trends for each standard and total score. Linear trends had medium ($< .79$) and large ($> .79$) effect sizes: Joint Productivity $F(1, 33) = 115.83, p < .001$ (partial eta-squared =

.78); Language/Literacy $F(1, 33) = 104.72, p < .001$ (partial eta-squared = .76); Contextualization $F(1, 33) = 76.98, p < .001$ (partial eta-squared = .70); Challenging Activities $F(1, 33) = 81.43, p < .001$ (partial eta-squared = .71); $F(1, 32) = 121.97, p < .001$ (partial eta-squared = .79); Total Score $F(1, 33) = 148.65, p < .001$ (partial eta-squared = .82). Quadratic trends had medium effect sizes: Joint Productivity $F(1, 33) = 3.84, p < .001$ (partial eta-squared = .52); Language/Literacy $F(1, 33) = 48.40, p < .001$ (partial eta-squared = .60); Contextualization $F(1, 33) = 16.23, p < .001$ (partial eta-squared = .40); Challenging Activities $F(1, 33) = 14.47, p = .001$ (partial eta-squared = .31); Instructional Conversation $F(1, 32) = 23.03, p < .001$ (partial eta-squared = .42); Total Score $F(1, 33) = 41.23, p < .001$ (partial eta-squared = .56). These findings mean teacher growth predominately increased in linear fashion with a single decline from cycle six and seven. Teachers experienced dramatic growth between cycles one and four, with ongoing modest growth from cycles four to six.

Group Differences in Teacher Growth by Coaching Cycle

Table 2 presents means and standard deviations for the Five Standards and total score by coaching cycle and replication group. Three patterns are noteworthy. First, teachers from both groups were the most homogenous in their use of the standards, as measured by standard deviations, during the first coaching cycle. Teacher growth generally led to increased variation among teachers across coaching cycles. Second, the pattern of highest implementation of individual standards and total score differed between groups. Generally, CA teachers achieved their highest levels of implementation for individual standards earlier than IN teachers. For example, CA teachers' highest use of Joint Productivity was in cycle four. They peaked in cycle five in their implementation of Language/Literacy, Contextualization, Challenging Activities, and total score. CA teachers' highest level of implementation for the Instructional Conversation was in cycle six. IN teachers, on the other hand, were more uniform in reaching their highest levels of implementation for all standards and total score by cycle six.

Table 2
Means and Standard Deviations for the Five Standards by Coaching Cycle and Replication Group

Five Standards		Cycle 1		Cycle 2		Cycle 3		Cycle 4		Cycle 5		Cycle 6		Cycle 7	
		CA	IN	CA	IN	CA	IN	CA	IN	CA	IN	CA	IN	CA	IN
Joint Productivity	<i>M</i>	1.81	1.67	2.33	2.64	3.14	2.60	3.57	3.13	3.48	3.40	3.48	3.67	3.38	3.53
	<i>SD</i>	.82	.82	.86	1.01	1.06	1.24	.75	.74	.98	.99	.87	.49	.92	.74
Language/Literacy	<i>M</i>	2.05	1.53	2.29	2.14	3.14	2.73	3.57	3.20	3.57	3.40	3.24	3.67	3.48	3.40
	<i>SD</i>	.67	.52	.85	1.17	1.01	1.03	.75	.68	.93	.99	1.00	.49	.87	.99
Contextualization	<i>M</i>	1.43	1.60	2.05	2.07	2.67	2.27	3.19	2.53	3.29	3.26	3.14	3.40	2.76	3.20
	<i>SD</i>	.68	.63	1.07	1.14	1.46	1.22	.98	1.13	1.23	1.16	1.11	.91	1.26	1.21
Challenging Activities	<i>M</i>	1.62	1.60	2.10	1.93	2.67	2.13	3.14	2.67	3.29	3.00	3.24	3.27	3.29	2.87
	<i>SD</i>	.50	.63	.70	1.00	1.14	1.13	1.01	.90	1.06	1.13	1.14	.96	.96	1.13
*Instructional Conversation	<i>M</i>	1.10	.87	1.48	1.36	2.10	1.80	2.81	2.33	2.86	2.53	3.00	3.20	2.86	3.00
	<i>SD</i>	.94	.74	1.17	.84	1.70	.77	1.25	1.18	1.49	1.19	1.34	1.01	1.15	1.13
Total Score	<i>M</i>	8.00	7.27	10.24	10.14	13.90	11.67	16.24	16.62	16.62	15.60	16.10	17.20	15.81	16.00
	<i>SD</i>	2.51	2.76	4.11	4.64	6.03	5.05	4.00	4.99	5.00	4.90	4.58	3.69	4.12	4.72

Note. CA Group n = 21; IN Group n = 14; N = 35; *Instructional Conversation n = 34.

Third, IN teachers were more homogenous in their implementation of Joint Productivity and Language/Literacy at cycle six than at cycle one, and also more homogeneous in their implementation of all of the Five Standards during cycle six than their CA peers. The between-group findings from the two-way repeated measures ANOVAs, however, reveal that none of these slight group differences were statistically significant. This means that the general pattern of development was the same for both groups for each cycle of coaching, each standard, and total score. Figure 3 shows how groups mirror each other's growth across cycles for total score.

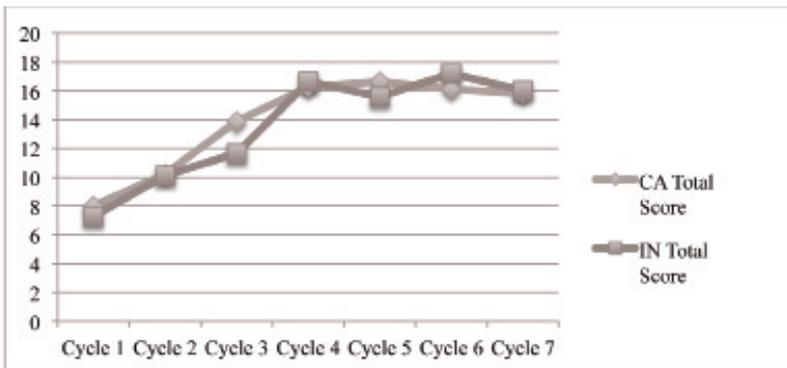


Figure 3. Marked line graph of replication groups' total score by cycle.

The between-group trend analyses, however, revealed the trend lines for three of the Five Standards' had significant groups differences with small effect sizes. Joint Productivity has a polynomial or Order 4 trend with at least three rises and falls: $F(1, 33) = 5.73, p = .022$, partial eta-squared = .15. Language/Literacy has a similar fluctuating trend: $F(1, 33) = 5.39, p = .027$, partial eta-squared = .14. Contextualization has a single or quadratic bend: $F(1, 33) = 5.87, p < .021$, partial eta-squared = .15. For Joint Productivity, Language/Literacy, and Contextualization, these differences were small and hardly noticeable.

DISCUSSION AND CONCLUSION

The focus of this replication study was to determine if the observed pattern of growth among urban elementary teachers could be generalized. With no group differences, the findings demonstrate a clear and generalized pattern of elementary urban teacher development in use of the Five Standards instructional model over seven coaching cycles. Specifically, elementary teachers implement Joint Productive Activity and Language/Literacy at higher levels than other standards from coaching cycle one to seven. These standards are the easiest for teachers to implement. Challenging Activities and Contextualization are implemented at roughly the same level, with teachers displaying more variability in their use of Contextualization. The Instructional Conversation is used least by teachers at the beginning and end of coaching, making it the most difficult for teachers to implement. The group differences in the trend or arch of development for Joint Productivity, Language/Literacy, and Contextualization are significant but with small effects, pointing to the fact that teacher growth can be idiosyncratic in timing and consistency across time even if the overall pattern of change effects are large.

Several conclusions are justified and should inform ESL professional development offered to mainstream teachers. First, the Five Standards instructional coaching model effectively increases teacher use of the Five Standards, with a linear pattern with the most growth occurring in the first four cycles of coaching. Second, some standards require more or less time to integrate into practice. The workshop and coaching should acknowledge "early adoption" standards and devote less time to these standards. More time and focus should be on understanding (a) how to Contextualization lessons in students' home, school, or community experiences; and (b) how to conduct high quality Instructional Conversations. Third, the total score shows that teachers achieve an enacting (i.e., $M = 12.50 < 17.49$) rather than an integrating level of fidelity (i.e., $M = 12.50 < 17.49$) to the model, with no group differences observed.

The findings also point to needed improvements. For example, seven coaching cycles do not ensure the highest levels of fidelity, especially in use of Contextualization and the Instructional Conversation. Contextualization requires cultural responsiveness. The Instructional Conversation requires open-ended questioning skills. The workshop should be redesigned to better prepare teachers to be culturally and instructionally responsive. These replication findings contribute significant evidence supporting the (a) validity of the professional development model (i.e., workshop plus coaching) to produce growth; (b) the reliability of teacher growth given the described coaching process; and (c) the generalizability of the pattern of growth in use of the Five Standards for urban elementary teachers. Teachers can be effectively prepared through an instructional coaching model that is performance-based, evidence-centered, technical, and intentionally designed to mediate and assist learning by being sociocultural in approach, process, and growth targets.

The field of ESL education has been slow to advocate for a mainstream model of ESL education. The development and validation of a professional development model promoting use of research-based practices for mainstream teachers of ELLs meets a pressing educational need. The Five Standards instructional coaching model leads to significant change in teacher pedagogy, a shared pattern of development, and reveals subtle group differences in reaching fidelity to the model. This replication study contributes valuable insights into a generalized pattern of teacher growth and challenges in learning to use the Five Standards instructional model. Although more innovation is required to improve teachers' overall fidelity to the model, ongoing study of Five Standards instructional coaching seems warranted.

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