

ACCELERATING ACADEMIC LITERACY: PROFESSIONAL DEVELOPMENT FOR URBAN MIDDLE AND HIGH SCHOOL TEACHERS

Final Report--2005 to 2009

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Executive Summary

Building on previous successes in improving urban adolescents' performance on academic literacy tasks through cognitive strategies based professional development for their teachers, a team of educators and researchers headed by Dr. Carol Booth Olson of UC Irvine received funds to enhance and transport the model to high need school districts where the team did not have the advantage of a long-standing working relationship. In addition to adding new elements to the professional development model including units on building students' academic vocabularies and using expert coaches to support teachers, the team also added new elements to their research design and to their measurements. These included cycling groups of teachers through various levels professional development over three years and using observers to gather data about teachers' classroom implementation of practices learned in professional development.

The core of the cognitive strategies professional development was a group of strategies developed by successful teachers and Carol Booth Olson and used and perfected over the years in professional development provided by the UCI Writing Project. Over the past decade, Olson has refined ,expanded, upon and published extensively on these cognitive strategies, which we often refer to as Pathway strategies.

This study lasted four years and involved at least 89 distinct middle and high school teachers in one to three years of professional development, which they implemented with at least 3600 students. The professional development yielded significant, positive

treatment effects on measures of writing quality, writing fluency, use of academic vocabulary, and English Language Arts grades. Moreover, students of teachers implementing this Pathway strategies had double the pass rate on the language arts portion of the California High School Exit Exam compared with the school as a whole and outperformed a control group on the California English Language Arts Standards Test at a level that approached statistical significance.

Other findings of note include the apparently strong beneficial effect of adding relatively small amounts of coaching to the professional development. This coaching involved three classroom visits and subsequent email exchanges with retired teachers who were highly experienced users and trainers of Pathway strategies. In addition, there appears to be strong evidence that many teachers continue to implement Pathway strategies after formal professional development has ended.

Perhaps the most important finding of this research is that professional development that has worked well at one site can be implemented successfully at other sites. As a brief conclusion, I would urge policy makers to pay much more attention to these research projects that point to proven interventions. Despite the very real limitations and shortcomings of these projects, which as academics we are honor bound to report, many of these projects have resulted in strategies for improving teaching and learning that are far, far more "proven" than so many costly, commercially produced interventions that the state must buy. Why, when projects like this one that are bought and paid for can produce far, far superior results?

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Acronyms and Abbreviations

ANCOVA--Analysis of Covariance

ANOVA--Analysis of Variance

API--Academic Performance Index

BCLAD--Bilingual and Cross--Cultural, Language and Academic Development

CAHSEE--California High School Exit Exam

CAT/6--California Achievement Tests

CBAM--Concerns Based Adoptions Model

CELDT--California English Language Development Test

CIERA--the Center for Improvement of the Early Reading Achievement

CLAD--Cross--cultural, Language and Academic Development

CPEC--California Postsecondary Education Commission

CSET--California Subjects Examinations for Teachers

CST--California Standards Tests

CSULA--California State University Los Angeles

CSULB--California State University Long beach

ELA--English language Arts

ELD--English Language Development

ELL--English language Learner

FEP--Fluent English Proficient

GPA--Grade Point Average

HLM--Hierarchical Linear Modeling

LEP--Limited English Proficient

LEA--Local Education Agency

LUSD--Lynwood Unified School District

NBPTS--National Board for Professional Teaching Standards

PUSD--Paramount Unified School District

SAUSD--Santa Ana Unified School District

STAR--Standardized Testing and Reporting

UCI--University of California, Irvine

UCIWP--University of California, Irvine Writing Project

UCLA--University of California, Los Angeles

USD--Unified School District

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Introduction and Background

Purpose of the Research

This report presents findings of a four-year-long study of the effects of academic-literacy-focused professional development on the writing and other performance indicators of middle and secondary students in two diverse, midsized school districts located in Southern California. For this study, the principal researcher, Carol Booth Olson, established and maintained a long-term educational partnership between the University of California at Irvine and Lynwood Unified School District (LUSC) and Paramount Unified School District (PUSD), aiming to replicate and enhance the efficacy of the Pathway Project, a cognitive–strategies based reading/writing intervention that was highly successful in the Santa Ana Unified School District (SAUSD), which has a similar population, socio-economic status, and performance profile.

The project aimed to improve the quality of teachers through intensive staff development based on the Pathway reading/writing intervention model developed by Carol Booth Olson and the University of California at Irvine Writing Project (UCIWP). The Pathway model provides teachers with the skills, strategies and curricular approaches to enhance the academic literacy of at-risk students and English Language Learners (ELLs) as measured by student outcomes such as essay writing and performance on high-stakes state-wide assessments. Further, we aimed to increase the level of teachers' fidelity to the intervention as measured by the Concerns Based Adoptions Model instrument (CBAM) (Hord et al., 1987), and to increase the quality of teachers' quality of delivery of the intervention as measured by classroom observations using an adaptation of the CIERA

(Taylor et al., 2003) and Land's (1995) National Board for Professional Teaching Standards (NBPTS) classroom observation. Additionally, we aimed to provide teachers with mini-lessons based on an in-depth analysis of student writing samples using the Vocabulary Profile (Cobb, 2002) to provide better instruction and corrective feedback on specific errors in students' academic English.

Based on successes with similar professional development in SAUSD (see Olson and Land, 2007), we expected that students in classes taught by teachers receiving professional development (Pathway students) would increase language arts grade point average (GPA), attendance rates, re-designation rates from limited English proficient (LEP) to fluent English proficient (FEP) status, retention rates, and college-going rates. we also expected Pathway students to show enhanced performance on standardized measures including the English/Language Arts (E/LA) portion of the California Standardized Testing and Reporting (STAR) assessments and the California High School Exit Exam (CAHSEE). Most significantly, because of it's the obvious relationship between academic literacy skills and analytic essays written in response to literature, we expected Pathway students to evidence significant growth in holistic quality, fluency, and vocabulary from fall to spring on the Pathway Assessment of Literary Analysis (ALA). expected that Pathway students would show accelerated growth in academic English as measured by the Vocabulary Profile (Cobb, 2002).

The Professional Development Model

Teachers participating in the project were released for six full days per year and attended monthly after-school meetings to receive staff development in methods for helping struggling readers and writers develop the academic literacy necessary to meet the California Content Standards, with special emphasis on the analytical reading and writing abilities targeted for in the 10th grade CAHSEE. These include literary response and analysis, comprehension and analysis of informational nonfiction texts, and development of clear, coherent focused essays.

At these training sessions, teachers were introduced to and later piloted in their classes a cognitive strategies reading/writing intervention, developed by Carol Booth Olson, that is based on a composing model of meaning construction derived from the research of Flower and Hayes (1981), Langer (1989), Paris, Wasik and Turner (1991), Tierney and Pearson (1983), and Tompkins (1997). In addition, the professional development model helps teachers train their students to develop declarative, procedural and conditional knowledge of the cognitive strategies, and thereby gain metacognitive control (Duffy, Roehler & Hermann, 1988) over the reading and writing process, teachers will be exposed to a variety of curricular approaches and prototype activities to promote strategy use.

School Setting and Demographics

Table 1 shows the basic demographic and performance characteristics derived from 2005 CA STAR data for the two districts involved in the study. Lynwood Unified School District and Paramount Unified School Districts are located in predominantly Hispanic areas of southeastern Los Angeles County. Together they serve a total of about 36,000 students, and about 15,000 secondary school students (grades 6-12). Both districts have much higher percentages of secondary level English Learners than LA County (23%) or California at large (16%). Additionally, both districts have much higher levels of secondary students reported as "economically disadvantaged" than county (58%) or the state (44%). As might be expected, the API for secondary grades in these districts are well below the state norm of about 700, and the pass rates on the CAHSEE are well below the statewide norm of 75%.

Table 1. Demographics for Accelerating Academic Literacy Partner Schools 2005

Lynwood Unified School District	Paramount Unified School District
19,072 total students	16,823 total students
Ethnic Breakdown Hispanic—90% Asian—0% Filipino/Pacific Islander—0.1% Black—8% Other—1%	Ethnic Breakdown Hispanic—83% Asian—1% Filipino/Pacific Islander— 2% Black—11% Other—0 %
52% English Learners, Grades 6-12	36 % English Learners, Grades 6-12
66% Economically Disadvantaged, Grades 6-12	88% Economically Disadvantaged, Grades 6-12
Academic Performance Index: 2004 Base: 600	Academic Performance Index 2004 Base: 630
<ul style="list-style-type: none"> • 2 Secondary Schools in PI 	<ul style="list-style-type: none"> • 4 Secondary Schools in PI
CAHSEE Pass Rate for 2004-2005	CAHSEE Pass Rate for 2004-2005
<ul style="list-style-type: none"> • District 62% • English Learners 33% 	<ul style="list-style-type: none"> • District 50% • English Learners 33%

Review of Related Research

In their report *English Learners in California Schools: Unequal Resources, Unequal Outcomes*, Gandar et al., (2003) note, “More than 18% of California’s secondary students are English learners. Proportionately, the percentage of English learners has been growing at a faster rate than the number in elementary schools. Unfortunately, the unique needs of these older EL students are even more overlooked than those of their younger peers.” A recent survey of California secondary teachers (Gandar et al, 2005) also revealed that for those teachers with 26-50% English learners in their classrooms, half had had no, or only one, professional development training session on working with at-risk students and/or ELLs. The professional development they most wanted is instructional strategies for the teaching of reading and writing. Lynwood teachers are especially in need of such training because only 65% of the teachers are fully credentialed and the district has experienced greater-than-average faculty attrition because of the high crime and homicide rate in the Lynwood community. Paramount faces similar challenges.

We hypothesized that our study results will be consistent with Taylor, Pearson, Peterson, and Rodriguez’s (2003) findings on the influence of teachers’ practices that encourage cognitive engagement in literacy learning at the elementary level and with Langer’s (2000) “Beating the Odds” findings at the secondary level. This body of research suggests that teachers can be trained to engage students in higher level thinking and discussion about texts through direct strategy instruction, modeling of strategy use, and

creating opportunities for students to practice and apply these skills through teacher coaching and feedback. We hoped to find experimental teachers to be more knowledgeable about recent theory and effective practice in academic literacy and in teaching ELLs students to use more cognitive strategies in their practice.

A recent study of prototype test items for high school exit exams (Wong Fillmore & Snow, 2003) reveals the degree of academic literacy expected of all secondary students, including ELLs, who are assessed on their ability and to do the following, and more: summarize texts, using linguistic cues to interpret and infer the writer's intentions and messages; analyze texts, assessing the writer's use of language for rhetorical and aesthetic purposes; evaluate evidence and arguments presented in texts and critique the logic of arguments made in them; and compose and write extended, reasoned text that is well developed and supported with evidence and details. The complexity of academic English is an obstacle for ELLs as they struggle to develop higher-level reading and writing skills (Scarcella, 2002). Some studies have shown that ELLs require six to ten years to acquire grade-appropriate reading and writing proficiency in English (Hakuta, Butler, & Witt, 2000). Many teachers of struggling students and English learners avoid teaching and requiring students to write analytical essays because they feel the skills required (strategic reading, development of a meaningful thesis, control of organization, effective use of evidence and supporting details, sentence variety, and command of the conventions of written English) are too sophisticated for the population they serve. Yet, these are the very abilities assessed on high stakes exams. Numerous researchers (Wong Fillmore, 1986), Moll (1988), Gandará et al (2003) have noted that districts do ELLs a

disservice when they offer a “reductionist” curriculum focusing primarily on skill and drill and that ELLs are most successful when teachers have high expectations and: “teachers explicitly teach and model the academic skills and the thinking, learning, reading, writing, and studying strategies ELLs need to know to function effectively in academic environment”; students read and write texts in a variety of genres with guided practice activities scaffolded by the teacher; students have opportunities to interact with teachers and classmates; and teachers have sustained, high quality professional development (The Education Alliance, 2003).

Methodology

Research Questions and Design

The research was conducted through a quasi-experimental design to test the efficacy of our cognitive strategies intervention and addressed the following two key research questions:

1) To what extent will teachers’ involvement in the UCIWP professional development model change observed teaching practices of analytical reading and writing in secondary school classes serving ELLs?

2) To what extent will teachers’ implementation of the reading/writing intervention improve the academic outcomes for ELLs in ELD, mainstream and Special Education classrooms on standardized measures of students’ analytical reading and writing, including an on-demand direct writing assessment, and high school graduation and college enrollment rates?

Our original design called for 30 teacher participants recruited from grades 8-12 at LUSD middle and high schools in such a way as to assure six reasonably similar classrooms were represented at each grade level. We then planned to offer the Pathway professional development to four randomly selected teachers at each grade level Year 1. Two randomly selected teachers at each grade level were to receive individualized coaching in addition to the Pathway professional development in Year 1. In Year 2, the "coached" and "Pathway only" groups were to switch. In Year 3, all 30 teachers were to receive Pathway professional development.

This rather simple design quickly required modification partly because serendipity presented a second district (PUSD) where we could offer Pathway PD, and partly because of reorganization and teacher attrition at both districts. In the end, we recruited 45 teachers from grades 8-11, from both districts. All but three of these teachers taught grades 9-11, and a majority (24) taught grades 9 and 10. Thus, we were unable to maintain perfect symmetry within grade level, but we tried to stratify the samples in such a way as to form groups that were as comparable as possible. We began Year 1 with 15 teachers who served as controls, 15 who received Pathway professional development only, and 10 who received the professional development plus coaching.

In Year 2, seven of the original 10 "coached" teachers continued to receive professional development; 11 of the original 15 "Pathway only" teachers received coaching and Pathway professional development; an group of additional 11 teachers received Pathway

professional development and coaching; and 14 teachers served as controls. Additionally, because we wanted to follow students as well as teachers, we included 12th grade classes in the Year 2 sample.

During Year 3, 39 teachers completed Pathway professional development, 23 for the first time, 12 for the third consecutive year. First time teachers participated in three days of summer training to “catch-up” with their colleagues prior to the whole group inservice during the school year and received peer coaching. Additionally, because supporting students in the development of academic literacy is the responsibility of all teachers, we held a two day workshop for all teachers in content areas other than English. In order to control against incentives to teachers influencing project outcomes, both experimental and control teachers received a stipend for participating and a classroom library allocation to conduct independent reading programs, giving both groups access and their students to trade books.

After our three years of planned intervention and data collection, we asked for a small supplement to examine several additional questions related to changes in student vocabulary use, changes in teaching practices, and differences in student performance in classes of teachers who were high and low implementers of the Pathway professional development. Table 2 summarizes the number of teacher participants who began and completed each year of professional development. To be included, teachers had to attend the professional development activities, administer fall and spring Assessments of Literary Analysis, complete surveys, and participate in classroom observation and

coaching as applicable. In a few cases, teachers did not complete all of their responsibilities and were not included. For example, in Year 1, one of the coached teachers left her job in mid year, leaving us with nine rather than 10 teachers in that group. Year 3 began with 45 teachers and ended with only 39 submitting pre and post tests. In all, 89 different teachers received at least one year of Pathway professional development and coaching. The average class size of these teachers was about 28, and in Years 2-4 about 85% of the students were new to the project, so approximately 3600 different students were directly involved over the course of the study. Assuming that each teacher taught 5 classes, another 7000 or so students may have benefited indirectly each year.

Table 2. Summary of Numbers of Teacher Participants Involved over Four Years of the Accelerating Academic Literacy Project

Group	Year 1	Year 2	Year 3	Year 4
Control	15	14		
Treatment	15	22		
Treatment Plus Coaching	9	7	39	
Post Intervention				12

Measurement Instruments

From the outset of this project, gathering student level data from the school districts was a real challenge despite a positive working relationship with both districts. In some cases, the data were delivered as words or symbols rather than numbers (e.g. "Limited English Proficient" instead of the numerical CELT level). Sometimes two data points were conflated (e.g. first semester and second semester language arts GPA presented as B/C+, rather than as separate numerical grades in separate columns). Additionally, student transience, changes in school structure and school staff made accurate data

gathering problematic. Nonetheless, we were able to gather sufficient student level data during Year 1 to draw meaningful inferences.

Beyond school provided data, we developed several additional measures for this study. Less successful, were our efforts to develop instruments for assessing teacher knowledge, fidelity, and quality of use of Pathway practices. Initially, we had proposed using a modified version of Koziol and Land's (1986) teaching practices inventory, an adapted version of Land's (1995), the CBAM as measures of knowledge, fidelity, and quality; however, based on recommendations from our advisors we chose to modify and validate a version of the CIERA (2003) classroom observation instrument to assess both fidelity and quality and to develop more extensive knowledge measures. These projects added great depth to the research team's conceptual understanding of the constructs we wanted to measure, but as of this date, data from these measures is not ready to analyze.

In addition to these data intensive measures, we did pilot and validate a brief classroom observation measure where we asked experienced users and trainers of Pathway practices to judge teachers' declarative, procedural, and conditional knowledge as well as student engagement. Using a 1-4 scale for each of the four dimensions, two observers of the same teacher achieved absolute agreement over 50% of the time and agreement within one point 90% of the time. During Year 3, we used this observation instrument to assess increases in teacher use of Pathway practices between fall and spring and to correlate observation scores with student outcomes. In Year 4, we used the observation instrument to identify high and low teacher implementers to examine the relationship between use of Pathway practices and student writing achievement.

We were most satisfied with our principal form of measurement, the Assessment of Literary Analysis (ALA), a set of eight carefully paired and piloted writing assessments asking students to read and analyze short pieces of literature. The assessments are designed to occur in the span of two class periods. Reading and reflecting activities take place the first period, and writing takes place the second period. Appendix A. presents an example of one writing prompt based on the short story "Scarlet Ibis" (Hurst, 1960). Although paired ALA assessments are piloted to assure that similar students will attain similar scores on each assessment, to control for the threats to validity of testing by treatment interaction, the two prompts were systematically administered so that half the students took one pre test and the other half took the other. Of all complete pre and post test pairs of assessments, 14 were selected at random from each teacher's class. These original assessments were coded to disguise all information identifying the writer, age, school, grade level, and time of testing. Project leaders reviewed and selected the "anchor papers" to use in training scorers, following University of California System "Subject A" placement essay scoring procedures with a few modifications. Scoring rubrics were aligned with the STAR and CAHSEE rubrics including: quality and depth of the interpretation of text presented, clarity of thesis, organization of ideas, appropriateness and adequacy of textual evidence, sentence variety, precise/descriptive language, and correctness of English language conventions. Initial scoring yielded inter-rater correlations of .70 and higher, and the rate of agreement within one point exceeded 90%. When initial ratings deviated by more than one point, a third expert scorer was used to resolve the discrepancy.

Although the ALA have been shown to be reliably scored and to have adequate alternate form comparability, we were unable to validate satisfactorily the ALA with the Test of Written Language--3 (TOWL--3) (Hammill & Larsen,1996), with correlations between the same students' scores on each assessment only in the .4 to .5 range for various ALAs, about the same as correlations between ALA and CAHSEE or CST E/LA scores. The disappointing correlation, less than the average correlation of .50 reported by TOWL in its comparison with student performance on other standardized measures, may have to do with the nature of the writing tasks involved. TOWL-3 elicits a timed, 15-minute, impromptu narrative response to a picture prompt, whereas the ALA is a two-day analytic reading and writing activity. Or, the problem may be that individual student performance on different writing tasks is far more variable than we would like (see Salvia & Ysseldyke, 1995 and Williamson & Hout, 1993).

In addition to providing holistic scores, these ALAs also provided measures of fluency (word count), and vocabulary usage. Because word count results correlate so strongly with holistic quality, we made limited use of this measure for this study. We did however enter a large number of Year 1 essays in the Vocabulary Profiler (Cobb, 2002). This yielded data on students' use of academic words, their use of more common and less common words, and the diversity of their word choice.

Data Analysis

Our initial intention to use hierarchical linear modeling became less attractive as we had to make more and more adjustments to our initial design. In the end, we chose to rely on simpler analysis of variance and covariance (ANOVA and ANCOVA), t-tests, correlations, and descriptive statistics. In part, we chose these simpler measures for their appropriateness given the data sets and design, and in part we chose them to accommodate the instructional and dissemination components of project, which addressed teacher and practitioner audiences. In comparisons of treatment and control groups, effect sizes were calculated using control group standard deviations rather than pooled standard deviations.

Results and Discussion

Introduction

Perhaps the most important outcome of this project has been dissemination of key results. This includes two publications in 2008 by Olson and Land (see Appendix B) and several presentations at major conferences including one at the 2009 National Council of Teachers of English session for winners of the Richard Meade Award for Outstanding Research in English Education. These key results include the significant impact of Pathway professional development on the performance of students in high need schools, the transferability of a professional development model instituted at one district to other districts; and the efficacy coaching as a means of augmenting the effectiveness of Pathway professional development.

Additionally, the researchers and teachers participating in the gained valuable insight that they were able to bring to bear in their practice beyond the study. As directors of separate California Subject Matter Projects in writing, Olson and Land, for example, use newly developed lessons and bring new insights into teaching English learners to their 160-hour summer institutes for PK-College teachers.

Student Outcomes

During Year 1, we gathered substantial amounts of data on the performance of students in experimental and control teachers' classes. Table 3 summarizes those data for which we had sufficient numbers of treatment and control students ($n > 100$) to permit reasonable inferences. We had hoped to evaluate retention and ELL redesignation rates, but were unable to get sufficient data. Moreover, these data indicate that control group students may have initially been somewhat higher performing than treatment group students based on first semester English/Language Arts GPA. Moreover, both treatment and control groups seem to have been higher performing than the overall school population, at least for the 10th graders for whom we were able to obtain CAHSEE scores. Both groups far exceeded the 2005-2006 average pass rate of 50%, although it is possible that the treatment group may have scored much lower had their teachers not received professional development targeted at CAHSEE skills.

Table 3. Treatment and Control Group Performance on Various Year 1 Outcome Measures

Outcome Measure	Treatment Group	Control Group	Difference
ALA Writing Assessment Gain	+.7	-.3	1.0**
ALA Fluency Gain	+57	-13	70**
STAR CST E/LA	327	311	16*
CAHSEE Pass Rate ¹	88%	92%	-4%
E/LA Grade Semester 1	2.01	2.32	-.31*
E/LA Grade Semester 2	2.46	2.50	-.04
E/LA Grade Gain	.45	.18	.27**
Absences	17.1	18.3	-1.2
% Academic Words Gain ²	+.20	+.02	.18**
Type Token Ratio ³	.481	.509	-.03
Lexical Density ⁴	.474	.469	.005

* Approaches statistical significance (<.07).

** Statistically significant (p<.05 level or lower).

1. The overall CAHSEE pass rate was 47% for the two districts

2. Academic words are roughly 600 words that form the core academic writing across the disciplines. Higher use of these words indicates increased ability to think and write analytically.

3. Type-Token Ratio is the number of different words used divided by the total number of words. Typically, the higher the ratio, the greater the vocabulary diversity of the writer.

4. Lexical Density is the ratio of content words to total words. Content words carry meaning, as opposed to function words such as “the,” “of,” “to,” and so on. Generally, the higher the ratio, the more meaningful the writing.

Despite a possible initial disadvantage, students in classes of teachers who received Pathway professional development out performed control group students on seven of 10 measures. Four of these differences were statistically significant at the .05 level, including an increase the average English/language arts grade from a C to a C+ and an increase in the use of academic words. These two outcomes, in particular strongly suggest that this project had beneficial effects on student performance beyond the ALA, an assessment designed specifically to match the aims of Pathway professional development. Similarly encouraging is the difference between treatment and control

group scores on the CST E/LA assessment, which approached statistical significance at less than 7% probability.

In addition to the generally positive student outcomes summarized in Table 3, we used the ALA all four years to help answer questions about the effect of adding a coaching component to the Pathway professional development model, the effect of years of participation in the professional development, and differences in student outcomes for teachers who were observed to be high vs. low implementers of the strategies presented in professional development.

Table 4 shows that the treatment groups had significant gains from pre test to post test in Year 1, and that this growth was 1.18 points higher than the loss of .44 points posted by the control group. We were concerned that for the first time ever in our years of research that the control group actually did significantly worse on the post test than on the pre test. One explanation may be many teachers in both districts in particular were complaining of test fatigue that spring. In one district morale seemed to be especially low because of pending reorganization. In any case, the average gain for the treatment group was higher than the treatment group gain we have seen over the years. Similarly, the effect size of .74 is substantially higher than the .25 to .40 effect size we often see.

Table 4. Year 1 ALA Scores Control vs. Combined Treatment Levels

Group (n)	Pre Test Mean (S.D.)	Post Test Mean (S.D.)	Difference (S.D.)	Significance, Effect Size
Control (169)	6.01 (1.59)	5.56 (1.37)	-.44 (1.77)	p<.002, E.S. = -.28
All Treatment (309)	5.95 (1.67)	6.69 (1.83)	.74 (1.96)	p<.001, E.S. = .44
Difference	-.06	1.13	1.18	
Significance, Effect Size	n.s.	p<.0001, E.S. =.71	p<.0001, E.S. = .74	

All ALA means are based on two scores on a 6-point scale resulting in a possible range of 2-12 points.

Table 5 shows that students of teachers in each treatment group made significant gains from pretest to post test in Year 1. These gains of about .6 and .9 points are in the range of what we have come to expect in previous studies. The most striking result of this first year was the apparent effect of adding coaching to the Pathway professional development. Although the coaching component consisted of only 3 classroom visits followed by email exchanges where teachers and coached chatted one-to-one with highly experienced coaches, the effect, as measured by post test scores appears to be very dramatic.

Table 5. Year 1 ALA Scores by Professional Development Level

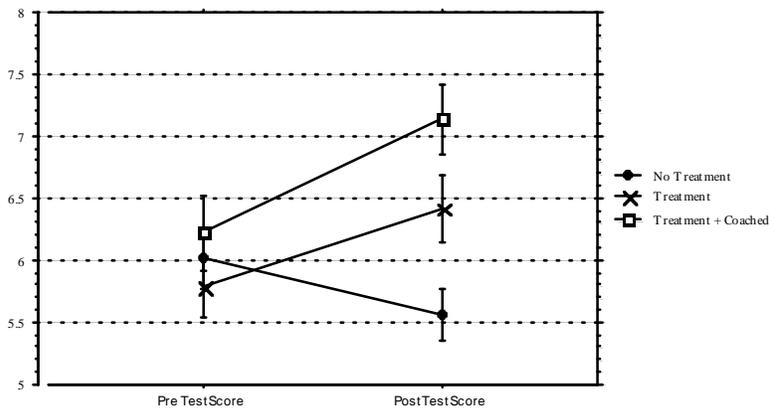
Group (n)	Pre Test Mean (S.D.)	Post Test Mean (S.D.)	Difference (S.D.)	Significance, Effect Size
Control (169)	6.01 (1.59)	5.56 (1.37)	-.44 (1.77)	p<.002, E.S. = -.28
Treatment, No Coaching (189)	5.78 (1.67)	6.41 (1.94)	.63 (2.04)	p<.0001, E.S. =.38
Treatment Plus Coaching (120)	6.22 (1.64)	7.13 (1.56)	.91 (1.83)	p<.0001 E.S. .55

As shown in Table 6, the coaching group had significantly higher post test scores than either the treatment only or the control group. Moreover, the difference between the coaching group post test and the control group post test scores was one of the largest we ever observed, with a very large effect size of over 1.15. Figure 1 shows the comparison most vividly. Note that the pre test scores are not significantly different, but that all three post test scores are.

Table 6. Year 1 ALA Post Test Scores Differences by Professional Development Level

Comparison	Difference
No Treatment vs. Treatment, No Coaching	.84 (p<.001, Effect Size =.62)
No Treatment vs. Treatment Plus Coached	1.60 (p<.001, Effect Size =1.15)
Treatment, No Coaching vs. Treatment Plus Coached	.76 (p<.001, Effect Size =.37)

Figure 1. Year 1 ALA Scores by Professional Development Level. Bars = 95% Confidence Intervals



In Year 2, we were able to compare differences by treatment level and years of both teacher and student participation. Table 7 shows the results for each subgroup. Because many cells represent so few students, Table 7 does not present significance probabilities. Another caution in comparing cells in this table is that students are unequally distributed according to grade level, which typically correlates with ALA scores between .30 and .40. Thus, the tantalizingly large differences between pre test scores of students in classes taught by treatment teachers who had been coached the previous year falls below the critical difference for statistical significance when grade level was entered as a covariate.

Table 7. Year 2 ALA Scores by Professional Development Level and Participation Years

Group		Pre Test	Post Test	Gain (Loss)
Control (n=14 Teachers, 177 students)		5.68	5.60	-.08
First Year Teacher, Coached 2006-2007 (n=11)	First Year Student (n=142)	5.64	6.12	.48
	Second Year Student (n=11)	6.27	6.55	.27
Second Year Teacher, Coached 2006-2007 (n=11)	First Year Student (n=131)	5.60	6.28	.68
	Second Year Student (n=21)	6.76	7.05	.29
Second Year Teacher, Coached the Previous Year, 2005-2006 (n=7)	First Year Student (n=68)	6.43	6.59	.16
	Second Year Student (n=24)	7.88	7.58	-.29

More robust are the data presented in Table 8. Students in classes of both groups of teachers who were coached Year 2 achieved significant gains in ALA scores and these gains were significantly higher than those for the control group or the group of teachers who were coached the previous year. At first, this result might appear to suggest a decline in the effect of Pathway professional development over time; however, it should be noted that the pre test scores of students in classes taught by second year teachers who were coached in Year 1 were significantly higher than those for any other group, and that the gains for these teachers' students was depressed by especially high pre test scores for a group of second year students. An examination of grade level and other factors doesn't help explain the difference. Of significant differences do occur at random, and this may be one of those. Another explanation for the high pre test scores might be that these teachers began using Pathway strategies at the start of the year so that by October, their students were much better prepared for the ALA than students of other teachers who did not begin Pathway professional development until after administration of the pre test. The small gain, even for first year students in classes taught by second year participants who received coaching Year 1, does raise the question of whether there needs to be modification in the Professional development model to help students achieve higher performance from a higher starting place.

Table 8. Year 2 ALA Scores by Professional Development Level and Teacher Participation Years

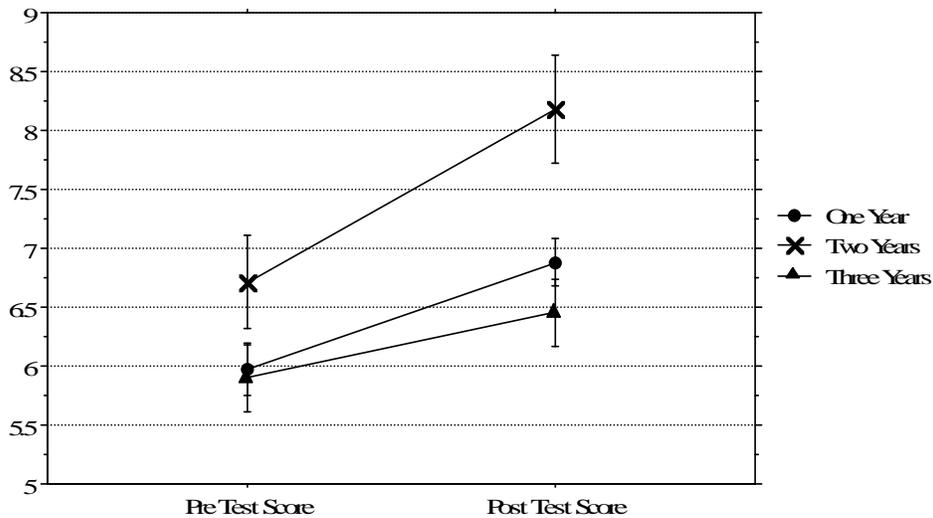
Group	Pre Test (S.D.)	Post Test (S.D.)	Difference (S.D.)	Significance
Control (n=14 Teachers, 177 Students)	5.68 (1.95)	5.60 (1.81)	-.08 (1.88)	n.s.
First Year Teacher, Coached 2006-07 (n=11 Teachers, 153 Students)	5.69 (2.01)	6.16 (1.70)	.47 (1.85)	p<.05, E.S. .24
Second Year Teacher, Coached 2006-07 (n=11 Teachers, 152 Students)	5.76 (1.90)	6.80 (2.02)	.62 (1.49)	p<.005, E.S. .53
Second Year Teacher, Coached 2005-06 (n=7 Teachers, 92 Students)	6.38 (1.84)	6.85 (1.89)	.04 (2.02)	n.s.
Critical Difference for p<.05 Significance	.56	.57	.55	

In Year 3, all teachers received professional development and coaching. Overall, students achieved significant gain of .87 ($p<.0001$, E.S. =.54) between pre and post tests. Year 3 data seem to allay concerns about a possible drop off in treatment effect after the first year of professional development raised by Year 2 data. As Table 9 shows, students in classes taught by first, second, and third year teacher participants all made significant gains on the ALA. Furthermore, as might be hoped, students of the teachers who had received the most professional development posted significantly higher pre test scores and also made significant gains. This effect is most clearly shown by Figure 2.

Table 9. Year 3 ALA Scores by Years of Teacher Participation

Group (n)	Pre Test Mean (S.D.)	Post Test Mean (S.D.)	Difference (S.D.)	Significance, Effect Size
First Year (287)	5.98 (1.89)	6.88 (1.71)	.90 (1.79)	p<.0001, E.S. = .53
Second Year (56)	6.71 (1.49)	8.18 (1.73)	1.47 (2.02)	p<.0001, E.S. = .85
Third Year (148)	5.90 (1.77)	6.45 (1.72)	.55 (1.83)	p< .0005 E.S. .32

Figure 2. Year 3 ALA Scores by Years of Professional Development. Bars = 95% Confidence Intervals



Teacher Outcomes

A central research question focused on whether or not the Pathway professional development resulted in observable changes in teacher knowledge and classroom practice. Although this study provides substantial indirect evidence of improved teaching evidenced by student performance, as of this date, it has not provided definitive direct

evidence. Nonetheless, classroom observers did document holistic assessments of teacher implementation of Pathway practices. This assessment involved judgments on four dimensions. The first three were teachers' perceived declarative, procedural, and conditional knowledge of Pathway strategies, and the fourth was perceived level of student engagement. Having piloted this brief observation instrument and established high levels of inter rater reliability, two observers conducted mid year and end of year observations of 22 teacher participants during year 3 of the study. A moderate, significant correlation between the average observation score obtained toward the end of the year and post test scores on ALA ($r=.55$, $p<.02$) suggests that teachers who better understood and used Pathway practices had better student outcomes. The strongest individual predictor of student performance was their procedural knowledge, or their perceived skill in using Pathway practices ($r=.57$, $p<.01$). One might predict that teachers' conditional knowledge and student engagement would be even stronger predictors of student outcomes, but these factors would most likely take more and more detailed observations than we were able to conduct.

Our three years of professional development for teachers of English language arts in Lynwood and Paramount Unified middle and high schools ended in the spring of 2008. However, in 2008-2009 we conducted a follow up of the lasting effects of Pathway professional development. Using our teacher observations, we identified six high and six low implementers of Pathway practices in grades 8-11, and we asked them to administer pre and post ALAs, just as they had done when they were participating in Pathway professional development. Because of year-to-year changes in assignments, one of the high implementer teachers moved from 8th to 6th grade and another moved from 10th to

12th grade. In the low implementer group, our 11th grade teacher moved to 10th grade. These shifts in assignments may explain the significantly lower pre test scores and the somewhat higher (but not significantly higher) variability of scores for students in the high implementer group. This concern aside, Table 10 shows that students of high implementers achieved significant gains on the ALA and these gains were significantly higher than gains for students in classes of low implementing teachers.

Table 10. ALA Scores for Students of Six High and Six Low Implementers of Pathway Professional Development Strategies, Grades 6-12, 2008-2009

Group (N)	Pre Test (S.D.)	Post Test (S.D.)	Gain (S.D.)	Significance, Effect Size
Low Implementers (77)	6.10 (1.55)	6.34 (1.58)	.24	n.s.
High Implementers (71)	5.39 (1.76)	6.45 (1.5)	1.06	p<.0001, E.S. =.60
Difference	.71	.11	.63	
Significance, Effect Size	p<.005, E.S. =.32	n.s.		

As with the Year 3 data showing a relationship between observed teacher use of practices provided in the professional development and student scores, we interpret the follow up study data as evidence that the professional development achieved the goal of improving the quality of some teachers' ability to improve students academic literacy. Coupled with the strong and consistent finding that students of teachers receiving Pathway professional development significantly outperformed their peers, we conclude that the majority of teachers were successful implementers of these practices that improved academic literacy.

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Appendix A

Sample Assessment of Literary Analysis Activity, Prompt, and Rubric

Pathway Project Reading and Writing Assessment

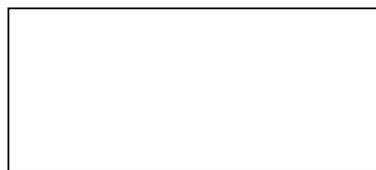
Directions:

You will have two class periods for this reading and writing assessment. During the first period, you will read a short story entitled "The Scarlet Ibis" by James Hurst. Then you will respond to several questions and engage in activities that will help you think about what you have read in preparation for writing your essay. These notes will be collected to help you and your teacher understand how well you are reading.

During the second period, you should first reread the story. Then, look over your preliminary ideas and write your essay. Allow time to review and proofread your essay and make any revisions or corrections you wish. Your essay will be evaluated both for your reading ability and your writing ability.

Now, read "The Scarlet Ibis." There is room on the pages for you to mark up the story as you read. You will want to:

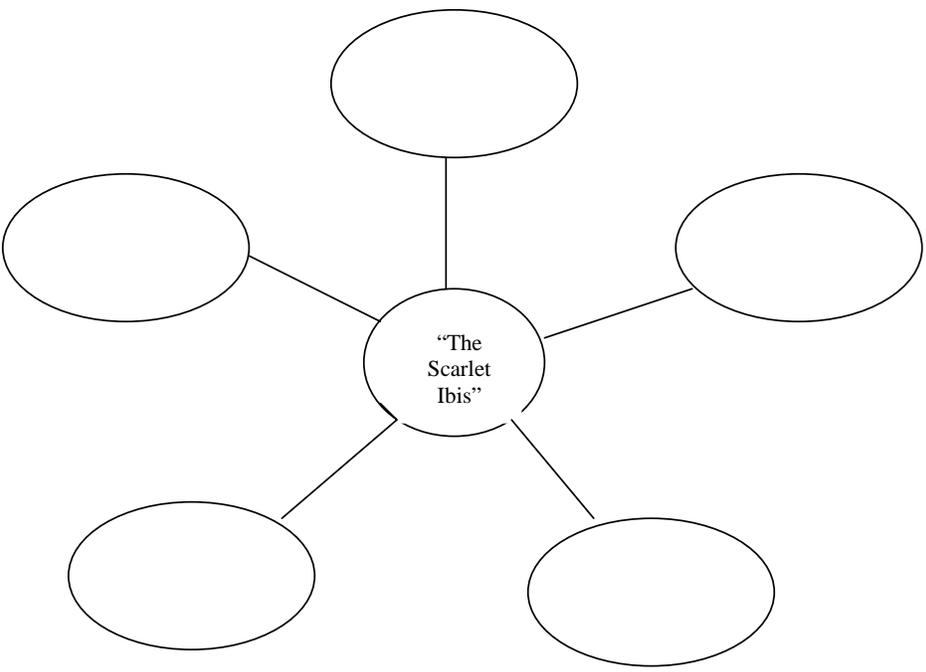
- Make notes about any details that stand out
- Write questions you have about the use of certain words or phrases
- Make notes about anything that is similar to your own experiences
- Comment on parts that you think are especially interesting



Your Name

1. Generate Big Ideas

Think about the author's main points, big ideas, or important lessons in "The Scarlet Ibis." Make a cluster of these BIG IDEAS below.



2. Create a Theme Statement

The theme of a literary work is the writer's message or main idea. The theme is what the writer wants you to remember most. Most stories, novels and plays, and sometimes poems have more than just one theme. Some themes are easier to spot than others. A character might say something about life that is clearly important. For example, in E.B. White's *Charlotte's Web*, Wilbur says at the end, "Friendship is one of the most satisfying things in the world." That's a statement of one of the book's themes. But, often, you have to be a bit of a detective to discover the theme or themes. The author leaves clues, but it is up to you to put them together and decide what the important message or lesson is.

A story's theme is different from its topic or subject. The topic is simply what it's about. The theme is the author's point about a topic. A theme is more than one word like love or pride. It's at least a noun and a verb in a sentence like "Love conquers all" or "It's important to stand up for your beliefs" or "When you open your heart to others, your open your heart to hurt as well as love."

Select one of the BIG IDEAS in your cluster, that you think is especially important. Turn this idea into a theme statement.

Theme statement: _____

3. Explore Character Relationships

Fill out the following chart looking at key events (i.e. things that happened) in the plot that relate to the theme you selected. Note what the characters did, what the characters said, and what the character thought.

Theme Statement	How does the narrator react to and interact with Doodle based upon how he perceives him?	What is your evidence? Evidence can include what a character says, does, or thinks
Beginning of Story		
Middle of Story		
End of Story		

5. Analyzing Character Growth.

What does the narrator learn by the end of the story? Do you see any changes in the character's thoughts, feelings, or behaviors? How does this confirm your theme?

6. Reflecting and Relating

Through the interaction of his or her characters and the use of symbol, an author is able to convey a message about life that is clearly important. Explain why the theme the author communicates is especially significant.

Prompt

“The Scarlet Ibis”

A Word About Theme

The theme of a literary work is the writer’s message or main idea. The theme is what the writer wants you to remember most. Most stories, novels and plays, and sometimes poems have more than just one theme. Some themes are easier to spot than others. A character might say something about life that is clearly important. For example, in E.B. White’s *Charlotte’s Web*, Wilbur says at the end, “Friendship is one of the most satisfying things in the world.” That’s a statement of one of the book’s themes. But, often, you have to be a bit of a detective to discover the theme or themes. The author leaves clues, but it is up to you to put them together and decide what the important message or lessons is. (Adapted from Great Source *Reader’s Handbook*)

Writing Directions

After reading “The Scarlet Ibis,” select one important theme to write an essay about. Create a specifically worded theme statement which expresses the author’s main point, message or lesson in the story.

Explore how the author communicates this theme through the relationship between the characters as the story unfolds. Pay special attention to:

- How the narrator reacts to the arrival of his little brother.
- How he interacts with Doodle based upon how he views him.
- The symbol or symbols the author uses to show the changing relationship between the characters.
- What the narrator learns by the end of the story.

Through the interaction of his or her characters, an author is able to convey a message about life that is clearly important. Explain why the theme the author communicates is especially significant.

Throughout your essay, use specific references to the text to support your ideas and follow the conventions of standard written English. Remember: there is no one theme and therefore no “right” answer to this prompt. What is important is to support your ideas with evidence from the text.

Scoring Guide for “The Horned Toad” and “The Scarlet Ibis”

Note: Papers at all levels of achievement described below will contain some or all of the characteristics listed as criteria for each particular score.

6 Exceptional Achievement

- Writer introduces the subject, giving enough background for the reader to follow the interpretation he/she offers in response to the prompt;
- Overall, writer offers thoughtful insights into the impact either Great-Grandma or Doodle has on the narrator;
- Writer clearly and carefully describes how the narrator and his family reach to Great-Grandma or Doodle;
- Writer thoroughly and perceptively discusses how the narrator interacts with Great-Grandma or Doodle based upon how he perceives her or him and how she or he behaves;
- Writer thoughtfully analyzes what the narrator has discovered about Great-Grandma or Doodle, about himself, and about what he values in life in general as a result of knowing and being with Great-Grandma or Doodle;
- Writer perceptively discusses images and symbols the author uses to show the reader the narrator’s discovery;
- Writer skillfully weaves numerous references from the text into the paper to support his/her ideas;
- Writer interprets authoritatively and advances to a logical conclusion;
- Paper has few errors in the conventions of written English.

5 Commendable Achievement

- Writer introduces the subject, giving some background for the reader to follow the interpretation he/she offers in response to the prompt;
- Overall, writer offers reasonably thoughtful insights into the impact either Great-Grandma or Doodle has on the narrator;
- Writer clearly describes how the narrator and his family react to Great-Grandma or Doodle;
- Writer thoroughly discusses how the narrator interacts with Great-Grandma or Doodle based upon how he perceives her or him and how she or he behaves;
- Writer analyzes what the narrator has discovered about Great-Grandma or Doodle, about himself, and about what he values in life in general as a result of knowing and being with Great-Grandma or Doodle;
- Writer discusses images and symbols the author uses to show the reader the narrator’s discovery reasonably perceptively;
- Writer weaves numerous references from the text in the paper to support his/her ideas;
- Writer interprets authoritatively but less compellingly than a 6 essay and advances to a reasonable conclusion;
- Paper has relatively few errors in the conventions of written English.

4 Adequate Achievement

- Writer orients the reader adequately by giving at least some introductory context;
- Writer may begin unsteadily but reaches a focus or point;
- Overall, writer offers some degree of insight into the impact either Great-Grandma or Doodle has on the narrator;
- Writer describes how the narrator and his family react to Great-Grandma or Doodle;
- Writer adequately discusses how the narrator interacts with Great-Grandma or Doodle based upon how he perceives her or him and how she or he behaves;
- Writer provides some analysis of what the narrator has discovered about Great-Grandma or Doodle, about himself, and about what he values in life in general as a result of knowing and being with Great-Grandma or Doodle;
- Writer discusses images and symbols the author uses to show the reader the narrator's discovery;
- Writer weaves some references from the text into the paper to support his/her ideas;
- Writer interprets less authoritatively than a 5 paper. While the paper has a conclusion, the development of the paper toward that conclusion may be less logically organized.
- Paper has some errors in the conventions of written English, but none that interfere with the message.

3 Some Evidence Achievement

- Writer introduces the topic perfunctorily or simply dives in--answering the questions without developing a clear introduction;
- Overall, writer's discussion of the impact either Great-Grandma or Doodle has on the narrator may be superficial or rely on the retelling of events;
- Writer briefly summarizes but does not clearly describe how the narrator and his family reach to Great-Grandma or Doodle;
- Writer summarizes but does not discuss in depth how the narrator interacts with Great-Grandma or Doodle based upon how he perceives her or him and how she or he behaves;
- Writer may recount the end of the story rather than analyze what the narrator has discovered about Great-Grandma or Doodle, about himself, and about what he values in life in general as a result of knowing and being with Great-Grandma or Doodle;
- Writer may fail to discuss images and symbols the author uses to show the reader the narrator's discovery or make a brief statement about images and symbols that is not clearly or fully explained;
- Writer uses few, if any, references from the text into the paper to support his/her ideas;
- Writer seems to lack skill in presenting his/her own ideas and may fall back on plot summary. The writer's conclusion may be slightly off-base or inadequately developed;
- Paper may have errors in the conventions of written English, some of which interfere with the reader's comprehension.

2 Little Evidence of Achievement

- Writer provides no introduction or it is brief and unfocused;
- Writer does not seem to understand what impact Great-Grandma or Doodle has on the narrator;
- Writer may fail to discuss how the characters react to Great-Grandma or Doodle or simply recount plot summary;
- Writer may not understand how the narrator's reaction to Great-Grandma or Doodle influences his interaction with her or him;
- Writer may recount the ending of the story without exploring what the narrator has learned about Great-Grandma or Doodle, himself, or what he values;
- Writer talks in generalities and fails to provide specific references to the text;
- Writers fails to mention the use of images and symbols or clearly misunderstands their significance;
- Conclusion may be abrupt or missing;
- Paper has many errors in the conventions of written English, many of which interfere with the writer's message.

1 Minimal Evidence of Achievement

- Context/introduction is missing, abrupt or confusing.
- Writer does not discuss or appear to understand the impact of Great-Grandma or Doodle on the narrator;
- Writer merely retells the story and does not describe the narrator and his family's reaction to Great-Grandma or Doodle;
- Writer makes no attempt to consider how the narrator reacts to Great-Grandma or Doodle;
- Writer misreads or has a very limited understanding of the ending of the story;
- Writer fails to provide references to the text;
- Writer has very poor command of how to construct an essay;
- Paper has so many errors in the conventions of written English that the writer's meaning is obscured.

Appendix B

Articles Disseminating CPEC ITQ Accelerating Academic Literacy Project Results

Draft of article published in *Research in the Teaching of English*, February, 2008

Taking a Reading/Writing Intervention for Secondary English Language Learners on the Road: Lessons Learned from the Pathway Project

Carol Booth Olson *University of California Irvine*
Robert Land *California State University, Los Angeles*

These two recipients of this year's Purves Award reflect on their work on "A Cognitive Strategies Approach to Reading and Writing Instruction for English Language Learners in Secondary School" and the lessons they learned from their original research study as they tried to replicate the project in two additional districts outside their service area, to determine if the implications of their study would hold beyond the local context.

At the beginning of the 2007 school year, we received this forwarded message from Chuck Ogle, a retired District Literacy Specialist for Santa Ana Unified School District (SAUSD) and former middle school Pathway Project teacher, who is assisting us with a new three-year research study, and we had to smile.

From: "Autum Lovin" aloving@paramount.k12.ca.us
Date: September 18, 2007
To: cogle@cox.net
Subject: UCI

Hi Chuck,

I was just wondering when we are going to begin with UCI stuff this year... I am DYING to start teaching the cognitive strategies to my students, but I thought I should wait until after they take the pre test.

Any info will be greatly appreciated.

Thanks,

Autumn

Autumn is beginning her third year as an experimental teacher in the Accelerating Academic Literacy Project, a collaborative venture between the UC Irvine/California Writing Project (UCIWP) and Lynwood and Paramount Unified School Districts, and Chuck is serving as a Literacy Coach. Funded by the California Postsecondary Education Commission (CPEC), this recent grant project was mentioned in the **Next Steps** section of our article “A Cognitive Strategies Approach to Reading and Writing Instruction for Secondary English Language Learners.” It is our attempt to replicate the quasi-experimental design of the Pathway Project, the eight-year longitudinal study we conducted in SAUSD, to determine if the implications of the study will hold beyond the local context. In this reflective essay, we will focus on the lessons we learned during our implementation of the Pathway Project in SAUSD that have helped us successfully deliver professional development based on a cognitive strategies approach to literacy instruction for secondary [English language learners \(ELLs\)](#) in a setting [that](#) is outside our service area, and discuss some of the challenges we have faced in taking [this](#) reading/writing intervention on the road.

The Setting

Lynwood and Paramount Unified School Districts are located in Los Angeles County only 33 miles from UCI, but anywhere from an hour to two hours drive on traffic-congested freeways. Both districts have strikingly similar demographics and performance profiles to SAUSD, as the chart below for 2004-05, the year we submitted our CPEC proposal, indicates.

Figure 1

Santa Ana Unified School District	Lynwood Unified School District	Paramount Unified School District
<ul style="list-style-type: none"> 61,693 total students Ethnic Breakdown <ul style="list-style-type: none"> Hispanic—92% Asian—3% Filipino/Pacific Islander—1% Black—1% Other—3% 60% LEP 75% Free and Reduced Lunch API: 2004 <u>Base</u>: 628 9 out of 13 secondary schools in PI CAHSEE Pass Rate for 2004-2005 District 62% English Learners 39% 	<ul style="list-style-type: none"> 19,072 total student Ethnic Breakdown <ul style="list-style-type: none"> Hispanic—90.5% Asian—0% Filipino/Pacific Islander—0.1% <ul style="list-style-type: none"> Black—8.5% Other—0.8% 45.3% LEP 70.8% Free and Reduced Lunch API: 2004 <u>Base</u>: 600 1 Middle School in PI 1 High School not in PI CAHSEE Pass Rate for 2004-2005 District 62% English Learners 33% 	<ul style="list-style-type: none"> 16,823 total student Ethnic Breakdown <ul style="list-style-type: none"> Hispanic—83.1% Asian—1.2% Filipino/Pacific Islander—1.7% Black—10.9% Other—0 % 43.1% LEP 82% Free and Reduced Lunch API: 2004 <u>Base</u>: 630 4 out of 5 secondary schools in PI CAHSEE Pass Rate for 2004-2005 District 50% English Learners 33%

Note: CAHSEE is the California High School Exit Exam. PI is Program Improvement. API is Academic Performance Index, which is scaled from 200-1000 with 800 being the target for CA schools.

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We were especially interested in these districts because they have large populations of ELLs who are mainstreamed into standard English/Language arts classes just as they are in SAUSD. Therefore, these districts afforded us an opportunity to study the efficacy of our intervention and to see if we could achieve similar results with secondary ELLs in an area where we had no pre-existing relationships with teachers or administrators.

The Research Design

As with our eight-year Pathway Project in SAUSD, this project seeks to examine the extent to which providing ELLs in secondary school with declarative, procedural, and conditional knowledge of the cognitive strategies that research indicates successful readers and writers access when they construct meaning from and with texts will improve their reading and writing performance as based on commonly used measures and as sustained over time (Baker & Brown, 1984; Paris, Lipson, & Wixon, 1983; Pressley, 2000). We used a quasi-experimental research design (Campbell & Stanley, 1963) involving the same quantitative and qualitative measures described in our original article. However, because this project is only three years in duration, the districts are smaller, and we wanted to expose a critical mass of teachers to the intervention, we modified our design. Instead of having one experimental teacher matched with one control teacher, we divided the group into thirds. Then, to compensate for the geographical distance between UCI and these districts and to maintain more contact with the teachers, we added a coaching component that was not present in our original study. In Year 1, one-third of the participants received the professional development and volunteered to be coached, one-third received the professional development but did not volunteer to be coached, and one-third served as control teachers. In Year 2, the teachers who were not coached in Year 1 were coached. In Year 3, the control teachers joined the experimental group and they will receive coaching this year.

The Lessons

➤ *Start small and then scale up.*

In our original Pathway Project, we began with 14 teachers in two schools and scaled up over time to 55 teachers in thirteen secondary schools, reaching over 2000 students per year. This enabled us to groom a cadre of influential teachers, seven of whom were Writing Project Fellows, to provide leadership throughout the duration of the project. In Lynwood and Paramount, we had no Writing Project teachers to rely on and less time to implement our intervention. So, we began with 25 teachers in Year 1, added 10 teachers in Year 2, and grew to 45 teachers in Year 3. Guskey (2000) postulates that “significant change in the beliefs and attitudes of teachers is contingent on their gaining evidence of change in learning outcomes of their students” (p. 7). As in SAUSD, it was very helpful to have a cadre of open-minded, well-regarded teachers see the impact of the project for themselves and for their students in Year 1 who have served as role models in Years 2 and 3.

Comment [PLeM2]: ...and were they selected with this in mind?

➤ *Create a community of learners.*

Teachers these days (at least teachers in California) are bristling under state mandates, the pressure of high stakes tests, and pacing charts that can sometimes be so prescriptive as to specify what they should be doing while teaching a designated skill, strategy, content standard, and/or work of literature on any given day. Winning the trust of sometimes wary teachers is essential to implementing a successful intervention. Tchudi and Mitchell (1999) note, “Too often the affective domain in secondary classrooms is pooh-pooed and dismissed as non-essential” (p. 118). Although we were delivering a cognitive strategies intervention, we recognized that building an affective climate for learning is every bit as essential for teachers as for students. Consequently, we endeavored to create the same type of community of learners with these teachers that we do in our National Writing Project Summer Institutes. In a learning community, individuals have “a sense of being valued and respected... They feel connected to each other; they are an ‘us’” (Kohn, 1996, p. 101). To that end, we acknowledged teachers’ expertise, seeking their input on aspects of the training and the curriculum materials, and we invited them to bring successful assignments and student work to share with colleagues during school site meeting time and in grade level groups. Our CPEC Literacy Coaches, Chuck Ogle, Pat Clark, and Sharon Schiesl, also observed all teachers’ classes once per year and visited the coaching group’s classes three times per year and wrote lengthy personal letters highlighting the elements of effective instruction they had seen and offering helpful suggestions, pedagogical strategies, and curriculum materials.

When Autumn emailed Chuck because she wanted to find out the start date for the Year 3 CPEC Project, she did so because she had established a positive relationship with Chuck through his visits as her Literacy Coach. At our Kick-off meeting in October, we asked Autumn to explain why she was DYING to get started with the cognitive strategies intervention. She wrote the following:

I can’t wait to get started because I feel that the sooner I am able to start teaching my students to use their cognitive strategies “tool kit” the more productive their year will be. The lessons are so well organized and easy to teach; it actually makes my job easier and they love it! My students really get excited about all the hands on activities as well as learning to write better. It makes them more confident when they feel like they really can write a great essay. I want to be able to expose this year’s group to as much of the material as possible because it really makes a difference in their reading and writing skills.

One reason Autumn is especially invested in the intervention is that she contributed important ideas to the design of the curriculum materials. At one of our meetings, she shared how she had taken the Cognitive Strategies Sentence Starters we described on page 280 of our original article and combined them with booklets and visuals we designed for student-led discussions. We took her prototype and made class sets for every teacher. This leads us to our next lesson learned...

➤ *All of the principles of instructional scaffolding in the classroom apply to professional development.*

Comment [PLem3]: This and the following items should have the little bullet pointer so that they are consistent through out and so that the folks setting up the headings can get them all the same (whatever that is)

Ownership-Just like students, teachers need to have buy-in and a sense of purpose as they implement what they are learning;

Appropriateness-The tasks teachers are asked to undertake must build on their existing knowledge and research-base while challenging them to stretch;

Structure-The intervention/learning/teaching materials must be clear, useful, well organized, and presented in a way that not only guides teachers through their implementation but also enables them to apply the concepts in other contexts;

Collaboration-Teachers need ongoing opportunities to collaborate and to co-construct the intervention;

Internalization-The goal is increasingly to transfer the control for the intervention over to the teachers as they weave the intervention into the fabric of their teaching and apply and implement strategies independently. (Adapted from Langer and Applebee, 1986)

➤ *Establish tangible outcomes but don't promise more than you can deliver.*

Because our original Pathway Project demonstrates that it takes time to show growth in student reading and writing ability and especially to show transfer effect to high stakes tests (Olson & Land, 2007, p. 291), we have made it a practice to set tangible goals in terms of student outcomes but not to set the bar beyond what we could reasonably expect to achieve. For example, based on the Pathway results, we felt confident that we could state in our CPEC grant proposal that if teachers “faithfully” implemented the intervention, they could expect students to gain the equivalent of one-half a letter grade from their pre test to post test on the Assessments of Literary Analysis in a given year (Olson & Land, 2007, p. 288), that their students would not only grow more but write significantly higher post tests than control students, and that their students’ standardized test scores and on-demand writing scores would show an “upward trend” in Years 2 and 3 of the project exceeding that of the comparison group.

With that said, one of the most essential lessons we learned was...

- *It is important for professional developers to have high expectations of teachers and for teacher to have high expectations for their students.*

Increasingly, school districts are looking to highly prescriptive “teacher proof programs” to solve the problem of underperforming students. But these programs, especially those designed for ELLs, often offer a reductionist curriculum focusing on skill and drill. Many teachers of struggling students avoid teaching and requiring students to write analytical essays because they feel the skills required are too sophisticated for the population they serve. Yet, 20 states have established high-stakes exams that assess higher-level-reading and writing abilities (Wong Fillmore & Snow, 2003). A panel of distinguished researchers convened by the Educational Alliance at Brown University to explore promising practices for ELLs concurred that ELLs are most successful when teachers have high expectations and do not deny their students [access](#) to challenging academic content (Coady, Hamann, Harrington, Pachacao, Samboeum, & Yedlin, 2003). Our original Pathway study not only reinforces this recommendation, but also found that [considerable](#) academic advancement [is](#) possible for ELLs year after year when such strategies are implemented.

- *Large-scale professional development/research studies in school districts require administrative support.*

Deleted:

No large-scale professional development undertaking, particularly one that involves research, data collection, and management of the master schedule for teachers or students can be successful without administrative support at the school site and at the district level. One of the challenges we have faced in implementing a study in an area where we had no long-standing prior relationship (as we did in SAUSD where we had a 20 year history of collaboration) is in convincing busy administrators to keep the students participating in Year 1 of the study together as a [cohort](#) and placing them in the classroom of the [UCI/CPEC](#) teacher at the next grade level in Year 2, and doing so again in Year 3. As a result, the fidelity to the Pathway model across schools has been uneven [in terms of the number of second year students who remained in the program.](#) [Additionally, teachers across schools received differing amounts of administrative support as they implemented the intervention strategies and materials. Some teachers were encouraged to weave the intervention into their classrooms and to make modifications to their pacing charts, when necessary; others had to fit the intervention into an already full teaching schedule. Hence, the fidelity across teachers in implementing the key components of the intervention also varied.](#)

Preliminary Results

Despite the uneven fidelity of implementation, our first important finding is that the cognitive strategies approach appears to yield significant growth in the new districts. Table 1 shows the results for 2005-2006, the first year of the intervention.¹

Table 1. Overall Effect for Cognitive Strategies Intervention on Assessments of Literary Analysis¹ in Lynwood and Paramount School Districts Grades 8-12, 2005-2006

	Treatment (N=309)	Control (N=169)	Difference	Significance
Pre Test Mean (N)	5.95	6.01	-.06	n.s.
Post Test Mean (N)	6.69	5.56	1.13	p.<.0001
<u>Difference</u>	.74	-.44	1.18	p.<.0001
<u>Significance</u>	p.<.001	p.<.002		

Comment [PLem4]: OK . . . a few things about this and the tables that follow . . . 1) I prefer to avoid the use of the terms "gains" in places where they should be neutral (it is OK where the term is descriptive as in the scores actually showed gain but in column or row titles the use of gain implies directionality and potential researcher bias or predisposition. . . better is the term of art "change scores" . . . 2) whatever you do. . . use the same term for all similar titles: in this table you use "Gain" in one place and "Difference" in another . . . and 3) finally. . . if you do decide on the accountants' construction "Gain (Loss)" then negative entries in the cells should not have minus signs . . . they should be in parentheses . . . and 4) finally (again) there need not be some footnoting to inform the reader what the "significance"es that are reported refer to . . . what is being tested by column entries / by row entries - it could be any of a few different things.

The treatment group, which received the cognitive strategies intervention, began the year with slightly lower performance on their response to literature essays than the control group. However, they ended the year with significantly higher post test scores and a significant gain, whereas the control group actually had significantly lower post test scores. The average difference between treatment and control group gains over this school year is 1.18, which compare very favorably with the average difference of .56 for students at the same grade levels in the eight-year-long Pathway Project study. One explanation for the difference between the two studies may be that control group students in the eight-year study did show gains on the post tests whereas control students in the replication study showed no improvement in the first year.

Ye

ar two results from the replication study are shown in Table 2. Again, the treatment group gains were significantly higher than those for the control group, although the average difference of .54 is more in keeping with findings from our earlier study.

Table 2. Overall Effect for Cognitive Strategies Intervention on Assessments of Literary Analysis in Lynwood and Paramount School Districts Grades 9-12, 2006-2007.

	Treatment (N=370)	Control (N=177)	Difference	Significance
Pre Test Mean (N)	6.01	5.68	.33	n.s. (p.<.0001)
Post Test Mean (N)	6.47	5.59	.88	p.<.0001
<u>Difference</u>	.46	-.08	.54	p.<.002
<u>Significance</u>	p.<.0001	n.s.		

¹ Significance probabilities here and in Table 2 are derived from a repeated measures analysis of variance.

¹ The Assessments of Literary Analysis are in-class essays written in response to literature. These are holistically scored on a 1-6 scale. Essays are double scored without scorers knowing when the essay was written or at what grade level. The two scores are summed. Thus, the means reported are on an 11 point scale, "2"- "12." Two forms of the assessment are administered each year such that one half of the students in both the treatment and control groups receive one form as the pre test and the other as the post test. The other half of the students receive the assessments in reverse order to control for possible differences in task difficulty. All paper scores that differ by more than 1 point are scored by a third reader.

second important finding emerging in our CPEC study that is consistent with our study in SAUSD is that students who remain in the program for multiple years have higher pre test scores than first year experimental or control students as well as higher post test scores in subsequent years in the program. In other words, the duration of the intervention matters. Table 3 indicates the difference in performance between students who joined the CPEC project in Year 2 for the first time and students who were in a CPEC experimental teacher’s class for the second year in a row.

Comment [PLem5]: Not clear . . . do you really mean that those who stayed in had higher scores at the very outset (suggesting that better students stay with the program) or that they had higher pre test scores in subsequent years (suggesting a program effect) if the latter- this needs to be clearer.

Table 3. Assessments of Literary Analysis Scores by Student Years of Participation – 2006-2007

Group	Number of Students	Pre Test	Post Test	<u>Difference</u>
Control	177	5.68	5.60	-.08
First Year Student	342	5.78	6.27	.49
Second Year Student	56	7.14	7.18	.04

Deleted: Gain (Loss)

Note: 14 pairs of student pre tests and post tests per class were randomly sampled for scoring.

Two additional findings thus far concern the coaching component of the CPEC project and a carry-over effect. In Year 1, students in the classes of the ten teachers who received coaching had higher gains on the Assessments of Literary Analysis than students in the classes of 15 non-coached teachers in the UCI/CPEC project. The differences between fall 2005 pre test scores and spring 2006 post test scores were as follows:

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UCI/CPEC Coached	+0.92
UCI/CPEC Non-Coached	+0.64
Control Teachers	-0.44

The difference in gains between the coached and non-coached UCI/CPEC teachers is not statistically significant (p<.21). However, the difference between the two groups was big enough that had there been larger numbers of teachers participating the effect would have been significant. Students in the classes of coached teachers also had higher post test scores (7.13) as opposed to students of project teachers not in the coached group (6.38) versus students who were in the control group (5.54).

In Year 2, as Table 4 indicates, the students of second year CPEC teachers coached in the project in Year 1 had the highest pre test scores and the highest post test scores of any students in the study followed by second year students of CPEC teachers who joined the project in 05-06 but did not receive coaching until 06-07. Second year students in teachers’ classes who were new to the CPEC Project in 06-07 had the lowest post test scores of the three groups but still showed growth and had higher pre test scores than the first year students of new and second year CPEC teachers coached in 06-07. When we compared the performance of students of these CPEC teachers who were coached in 06-07 with the performance of students of control teachers, the difference in gains was statistically significant (.54 versus -.08, p.<.0002). This result suggests that coaching can have a positive impact. Therefore we have added 15 coaches (one per secondary school) to our most recent study in SAUSD.

Table 4. Assessments of Literary Analysis Scores by Teacher Level of Professional Development and Student Years of Participation – 2006-2007

Group	Number of Students	Pre Test	Post Test	Difference	
Control (n=14)	177	5.68	5.60	-.08	
First Year Teacher in CPEC Project, Coached 2006-2007 (n=11)	First Year Student in CPEC Project	142	5.64	6.12	.48
	Second Year Student in CPEC Project	11	6.27	6.55	.27
Second Year Teacher in CPEC Project, Coached 2006-2007 (n=11)	First Year Student in CPEC Project	131	5.60	6.28	.68
	Second Year Student in CPEC Project	21	6.76	7.05	.29
Second Year Teacher in CPEC Project, Coached the Previous Year, 2005-2006 (n=7)	First Year Student in CPEC Project	68	6.43	6.59	.16
	Second Year Student in CPEC Project	24	7.88	7.58	-.29

A new phenomenon we noticed for the first time (with the exception seniors in the eight-year Pathway Project who often had “senioritis” and underperformed on the post test) is something we are calling “assessment fatigue.” [We learned of this when we saw notes on some of the papers that said things like, “I’m really tired of taking tests, so this essay may not be that great.”](#) This may account for the slight, [but not statistically significant decline](#) in the second year students’ performance in the classes of second year teachers coached in Year 1, who began the year highly motivated and wrote lengthy, high-scoring pre test essays and wrote strong but less elaborated responses on their post tests that received similar or lower scores. [Nonetheless, all second year students \(who had significantly higher gains in Year 1\), started out with significantly higher scores than new treatment group students in the fall of 2006 \(5.78 vs. 7.14, p.<.0001\). This would seem to indicate a strong, positive carryover effect. Treatment group students gained and the gains held up over the summer.](#)

On the Road and Back Again

As we enter the third and final year of implementing our cognitive strategies intervention in Lynwood and Paramount, we have launched a new research study in SAUSD, which is being funded by the U. S. Department of Education Institute of Education Sciences (IES). This is a 3-year efficacy replication field trial (after an initial year devoted to the development of measures) with 104 teachers randomly assigned to [treatment and control](#) conditions. In the Pathway Project, although we coded teachers and students for the number of years they participated in the study, we did not control for teacher variables such as gender, age, years of teaching experience, training in ESL, qualification status with NCLB, and measures of self-efficacy. In the replication trial, we will control for these measures as well as collect classroom observational data to capture the fidelity of

teachers' implementation of the intervention and the quality of teacher practice and the use of cognitive strategies in the classroom.

The lessons learned not only in the original Pathway Project but during the time we took this intervention on the road will guide us as we bring the intervention back to SAUSD to serve new teachers and those veteran teachers who have not been involved in the intervention previously.

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Enhancing the Implementation of a Reading/Writing Intervention through Literacy Coaching

By Carol Booth Olson and Robert Land

At the beginning of the 2007 school year, we received this forwarded message from Chuck Ogle, a retired District Literacy Specialist for Santa Ana Unified School District (SAUSD) and former middle school teacher, who was assisting us with a three-year research study, and we had to smile.

From: "Autumn Lovin" alovin@paramount.k12.ca.us

Date: September 18, 2007

To: cogle@cox.net

Subject: UCI

Hi Chuck,

I was just wondering when we are going to begin with UCI stuff this year...

I am DYING to start teaching the cognitive strategies to my students, but I thought I should wait until after they take the pre test.

Any info will be greatly appreciated.

Thanks,

Autumn

Autumn was beginning her third year as an experimental teacher in the Accelerating Academic Literacy Project, a collaborative venture between the UC Irvine/ California Writing Project (UCIWP) and Lynwood and Paramount Unified School District, and Chuck was serving as a Literacy Coach. Funded by the California Postsecondary Education Commission (CPEC), this recent grant project sought to examine the extent to which providing secondary students with declarative, procedural, and conditional knowledge of the cognitive strategies that research indicates successful readers and writers access when they construct meaning from and with texts would improve their reading and writing performance (Baker & Brown, 1984; Paris, Lipson, & Wixon, 1983; Pressley, 2000). It was our attempt to replicate the Pathway Project, an eight year professional development program and longitudinal research study in SAUSD (see Olson & Land, 2007) in a setting that was outside our service area.

The Setting and Research Design

Lynwood and Paramount Unified School District are located in Los Angeles County only 33 miles from UCI, but anywhere from an hour to two hours drive on traffic-congested freeways. Both districts have strikingly similar demographics and performance profiles to SAUSD as Figure 1 indicates for 2004-05, the year we submitted our CPEC proposal. We were especially interested in these districts because they have large populations of ELLs who are mainstreamed into standard English/language arts classes just as they are in SAUSD. Therefore, these districts afforded us an opportunity to study the efficacy of our intervention and to see if we could achieve similar results with secondary ELLs in an area where we had no pre-existing relationships with teachers or administrators.

Figure 1

Santa Ana Unified School District	Lynwood Unified School District	Paramount Unified School District
<ul style="list-style-type: none"> • 61,693 total students • Ethnic Breakdown <ul style="list-style-type: none"> • Hispanic—92% • Asian—3% • Filipino/Pacific Islander—1% • Black—1% • Other—3% • 60% LEP • 75% Free and Reduced Lunch • API: 2004 Base: 628 • 9 out of 13 secondary schools in PI • CAHSEE Pass Rate for 2004-2005 District 62% <p>English Learners 39%</p>	<ul style="list-style-type: none"> • 19,072 total student • Ethnic Breakdown <ul style="list-style-type: none"> • Hispanic—90.5% • Asian—0% • Filipino/Pacific Islander—0.1% • Black—8.5% • Other—0.8% • 45.3% LEP • 70.8% Free and Reduced Lunch • API: 2004 Base: 600 • 1 Middle School in PI • 1 High School not in PI • CAHSEE Pass Rate for 2004-2005 District 62% <p>English Learners 33%</p>	<ul style="list-style-type: none"> • 16,823 total student • Ethnic Breakdown <ul style="list-style-type: none"> • Hispanic—83.1% • Asian—1.2% • Filipino/Pacific Islander—1.7% • Black—10.9% • Other—0 % • 43.1% LEP • 82% Free and Reduced Lunch • API: 2004 Base: 630 • 4 out of 5 secondary schools in PI • CAHSEE Pass Rate for 2004—2005 District 50% <p>English Learners 33%</p>

Note: CAHSEE is the California High School Exit Exam. PI is Program Improvement. API is Academic Performance Index, which is scaled from 200 – 1000 with 800 being the target for CA schools.

As with our project in SAUSD, we used a quasi-experimental research design involving an experimental and a control group, a pre and post test on-demand writing assessment, delivery of the cognitive strategies reading/writing intervention, a post test on-demand writing assessment, and collection of standardized test scores. However, because this grant was three years rather than eight years in duration, the districts are smaller, and we wanted to expose a critical mass of teachers to the intervention, we modified our design. Instead of having one experimental teacher matched with one control teacher, we divided the group into thirds. Then, to compensate for the geographical distance between UCI and these districts and to maintain more contact with the teachers, we added a coaching component that was not present in our original study. In Year 1, one-third of the participants received professional development and volunteered to be coached, one-third received the professional development but did not volunteer to be coached, and one-third served as control teachers. In Year 2, the teachers who were not coached in Year 1 were

coached. In Year 3, the control teachers joined the experimental group and they received coaching. We also scaled up the project from 25 teachers in Year 1, to 35 in Year 2, and to 45 in Year 3.

Coaching Challenges

In our original Pathway Project, we began with 14 teachers in two schools and scaled up over time to 55 teachers in thirteen secondary schools, reaching over 2000 students per year. This enabled us to groom a cadre of influential teachers, seven of whom were Writing Project Fellows, to provide leadership throughout the duration of the project. In Lynwood and Paramount, we had no Writing Project teachers to rely on. However, we were fortunate to have three newly retired Pathway Project veterans, Chuck Ogle, Pat Clark, and Sharon Schiesl, all UCI Writing Project Fellows and former SAUSD District Literacy Specialists, who served as our Literacy Coaches. The first hurdle they had to overcome was that they came into the two school districts as “outsiders” rather than “insiders.” Teachers these days (at least teachers in California) are bristling under state mandates, the pressure of high stakes tests, and pacing charts that can sometimes be so prescriptive as to specify what they should be doing while teaching a designated skill, strategy, content standard, and/or work of literature on any given day. Winning the trust of sometimes wary teachers is essential to implementing a successful intervention. Tchudi and Mitchell (1999) note, “Too often the affective domain in secondary classrooms is pooh-poohed and dismissed as non-essential” (p. 118). Although we were delivering a cognitive strategies intervention, we recognized that building an affective climate for learning is every bit as essential for teachers as for students. Consequently, we endeavored to create the same type of community of learners with these teachers that we do in our National Writing Project Summer Institutes. In a learning community, individuals have “a sense of being valued and respected... They feel connected to each other; they are an ‘us’” (Kohn, 1996, p. 101). To that end, our Literacy Coaches acknowledged teachers’ expertise, seeking their input on aspects of the training and the curriculum materials, and we invited them to bring successful assignments and student work to share with colleagues during nine afterschool meetings that supplemented and reinforced our six professional development released days. Pat, Chuck and Sharon presented themselves to the CPEC participants as “critical friends,” teachers just like them who had experienced their share of unruly students, lessons that “bombed,” and administrative constraints, along with many successes. Because they were “outsiders” who wished to establish rapport, rather than arbitrarily dividing Year 1 teachers into coaching and non-coaching groups, they invited those Year 1 teachers who wished to receive coaching to volunteer for three classroom visits, with an understanding that those teachers who did not volunteer would receive coaching in Year 2. Gusky (2000) postulates that “significant change in the beliefs and attitudes of teachers is contingent on their gaining evidence of change in learning outcomes of their students” (p. 7). As in SAUSD, it was very helpful to have a cadre of open-minded, well-regarded teachers see the impact of the professional development and coaching for themselves and for their students in Year 1 who served as role models in Year 2 and 3.

Another challenge we faced in our coaching component was that the time constraints we were under, the geographical distance, and the demands of the teachers' instructional day made it difficult to conduct the one-on-one pre and post observation conferences usually associated with coaching. Chuck, Pat and Sharon, solved this problem with pre conference emails and with lengthy personal post observation letters highlighting the elements of effective instruction they had seen and offering helpful suggestions, pedagogical strategies, and curriculum materials. Although they expected the absence of the face-to-face conference to be a huge liability, they actually found it to be an asset. As Chuck noted, "If you respond too quickly, you haven't had time to reflect. We had time to offer very positive commendations in letters to the teachers on the strengths we saw in their classrooms and to offer thoughtful suggestions to build on those strengths. Once the teachers talked to each other, positive word spread about the coaching visits and the teachers trusted us."

When Autumn emailed Chuck because she wanted to find out the start date for the Year 3 CPEC Project, she did so because she had established a positive relationship with Chuck through his visits as her Literacy Coach. At our Kick-off meeting in October 2007, we asked Autumn to explain why she was DYING to get started with the cognitive strategies intervention. She wrote the following:

I can't wait to get started because I feel that the sooner I am able to start teaching my students to use their cognitive strategies "tool kit" the more productive their year will be. The lessons are so well organized and easy to teach; it actually makes my job easier and they love it! My students really get excited about all the hands on activities as well as learning to write better. It makes them more confident when they feel like they really can write a great essay. I want to be able to expose this year's group to as much of the material as possible because it really makes a difference in their reading and writing skills.

I found that while working with the coaches of the CPEC/Writing Project on implementing the cognitive strategies approach, I was able to get valuable feedback that differed from what I was getting from my principal and peers. Being observed by individuals well trained in the strategies made the reflection process much more productive. We were able to discuss what worked and what didn't using a common language – a language my principal and most peers didn't have. Chuck, Pat and Sharon were always so positive and were not afraid to interact with my students, which the students really enjoyed. Getting together at the afterschool meetings was helpful in sharing what works and in learning new lessons they modeled you could turn around and use the next day in your classroom.

One reason Autumn was especially invested in the intervention is that she contributed important ideas to the design of the curriculum materials. At one of our meetings where teachers were asked to bring examples of how they had implemented the UCIWP training, she shared how she had taken the cognitive strategies sentence starters in Figure 2 and combined them with booklets and visuals we designed for student-led discussions. We took her prototype and made class sets for every teacher.

Figure 2. Cognitive Strategies Sentence Starters

Cognitive Strategies Sentence Starters	
<p>Planning and Goal Setting</p> <ul style="list-style-type: none"> • My purpose is... • My top priority is ... • I will accomplish my goal by ... <p>Tapping Prior Knowledge</p> <ul style="list-style-type: none"> • I already know that... • This reminds me of... • This relates to... <p>Asking Questions</p> <ul style="list-style-type: none"> • I wonder why... • What if... • How come... <p>Making Predictions</p> <ul style="list-style-type: none"> • I'll bet that... • I think... • If _____, then... <p>Visualizing</p> <ul style="list-style-type: none"> • I can picture... • In my mind I see... • If this were a movie... <p>Making Connections</p> <ul style="list-style-type: none"> • This reminds me of... • I experienced this once when... • I can relate to this because... <p>Summarizing</p> <ul style="list-style-type: none"> • The basic gist is... • The key information is... • In a nutshell, this says that... <p>Adopting an Alignment</p> <ul style="list-style-type: none"> • The character I most identify with is... • I really got into the story when... • I can relate to this author because... 	<p>Forming Interpretations</p> <ul style="list-style-type: none"> • What this means to me is... • I think this represents... • The idea I'm getting is... <p>Monitoring</p> <ul style="list-style-type: none"> • I got lost here because... • I need to reread the part where... • I know I'm on the right track because ... <p>Clarifying</p> <ul style="list-style-type: none"> • To understand better, I need to know more about... • Something that is still not clear is... • I'm guessing that this means _____, but I need to... <p>Revising Meaning</p> <ul style="list-style-type: none"> • At first I thought _____, but now I..... • My latest thought about this is... • I'm getting a different picture here because... <p>Analyzing the Author's Craft</p> <ul style="list-style-type: none"> • A golden line for me is... • This word/phrase stands out for me because... • I like how the author uses to show... <p>Reflecting and Relating</p> <ul style="list-style-type: none"> • So, the big idea is... • A conclusion I'm drawing is... • This is relevant to my life because... <p>Evaluating</p> <ul style="list-style-type: none"> • I like/ don't like _____ because... • My opinion is _____ because... • The most important message is _____ because...

Research
 In their article
 Coaching:
 Out of the
 Buly et. al

Findings
 "Literacy
 Coming
 Corner,"
 (2006)

note that although there is evidence that when coaching is combined with professional development, most teachers incorporate innovations into their classroom (Showers and Joyce, 1996) "we can't make the same assertions about student change" (p. 27). Although the coaching component of our project was limited, it did appear to have a positive impact on student outcomes.

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our first important finding is that the cognitive strategies approach appears to yield significant growth in the new districts. Table 1 shows the results for 2005-2006, the first year of the intervention.

Table 1. Overall Effect² for Cognitive Strategies Intervention on Assessment of Literary Analysis³ in Lynwood and Paramount School Districts Grades 8 – 12, 2005 – 2006

	Treatment (N=309)	Control (N=169)	Difference	Significance
Pre Test Mean (N)	5.95	6.01	-.06	n.s.
Post Test Mean (N)	6.69	5.56	1.13	p.<.0001
Difference	.74	-.44	1.18	p.<.0001
Significance	p.<.001	p.<.002		

When we compare the three groups in the study, students in the classes of the ten teachers who received coaching had higher gains on the pre and post on-demand writing assessment than students in the classes of 15 non-coached teachers in the UCI/CPEC project and the students of the control teachers. The differences between fall 2005 pre test scores and spring 2006 post test scores were as follows:

UCI/CPEC Coached	+0.92
UCI/CPEC Non-Coached	+0.64
Control Teachers	-0.44

The difference in gains between the coached and non-coached UCI/CPEC teachers is not statistically significant ($p < .21$). However, the difference between the two groups was big enough that had there been larger numbers of teachers participating, the effect would have been significant. Students in the classes of coached teachers also had higher post test scores (7.13) as opposed to students of project teachers not in the coached group (6.38) versus students who were in the control group (5.54).

In Year 2, as Table 2 indicates, the students of second year CPEC teachers coached in the project in Year 1 had the highest pre test scores and the highest post test scores of any students in the study followed by second year students of CPEC teachers who joined the project in 05-06 but did not receive coaching until 06-07. Second year students in teachers' classes who were new to the CPEC Project in 06-07 had the lowest post test scores of the three groups of second year students, but they still showed growth and had higher pre test scores than the first year students of new and second year CPEC

² Significance probabilities here and in Table 2 are derived from a repeated measure analysis of variance.

³ The Assessments of Literary Analysis are in-class essays written in response to literature. These are holistically scored on a 1 – 6 scale. Essays are double scored without scorers knowing when the essay was written or at what grade level. The two scores are summed. Thus, the means reported are on an 11 point scale, “2” – “12.” Two forms of the assessment are administered each year such that one half of the students in both the treatment and control groups receive one form as the pre test and the other as the post test. The other half of the students receive the assessments in reverse order to control for possible differences in task difficulty. All paper scores that differ by more than 1 point are scored by a third reader.

teachers coached in 06-07. When we compared the performance of students of these CPEC teachers who were coached in 06-07 with the performance of students of control teachers, the difference in gains was statistically significant (.54 versus -.08, $p < .0002$). This result suggests that coaching can have enhance the implementation of a reading/writing intervention in ways that positively impact student performance.

Table 2. Assessments of Literary Analysis Scores by Teacher Level of Professional Development and Student Years of Participation – 2006-2007

Group		Number of Students	Pre Test	Post Test	Difference
Control (n=14)		177	5.68	5.60	-.08
First Year Teacher in CPEC Project, Coached 2006-2007 (n=11)	First Year Student in CPEC Project	142	5.64	6.12	.48
	Second Year Student in CPEC Project	11	6.27	6.55	.27
Second Year Teacher in CPEC Project, Coached 2006-2007 (n=11)	First Year Student in CPEC Project	131	5.60	6.28	.68
	Second Year Student in CPEC Project	21	6.76	7.05	.29
Second Year Teacher in CPEC Project, Coached the Previous Year, 2005-2006 (n=7)	First Year Student in CPEC Project	68	6.43	6.59	.16
	Second Year Student in CPEC Project	24	7.88	7.58	-.29

In Year 3, teachers joining the project who had been in the control group during Years 1 and 2 or who had not participated in the project at all received both professional development and coaching. In the first two years of the project, as noted on Tables 1 and 2, students of control teachers had lower post test scores, apparently losing ground in their writing abilities. In Year 3, however, students of these newly coached teachers grew a full point from pre test to post test (5.89 to 6.89 on a scale of 2-12). This gain was statistically significant ($p < .0001$), and higher than the statistically significant .71 gain (6.20 to 6.91) of students in the classes of teachers who had been coached in previous years. One of the reasons for new participants' students having higher growth may be that experienced teachers' students started out with higher scores, perhaps because they were already using cognitive strategies, as Autum Lovin was so eager to do, even before they administered the pre test. From the three years of data, it seems clear that coaching combined with professional development gives a substantial initial boost to the effectiveness of writing instruction, and that the boost is sustained in following years.

A Bridge to Somewhere

Ultimately, Chuck, Pat and Sharon felt that the role they played as Literacy Coaches created a “bridge” between professional development and classroom implementation. Sharon commented, “Teachers were not lost. They felt grounded and empowered. They were not just the recipients of ‘top down’ staff development.” Three year CPEC participant, Tony Durante, summed it up like this:

The CPEC Literacy Coaches were immensely helpful in facilitating the transition from theory to classroom practice. They came into my classroom with all the experience and sympathy of veteran teachers, helping me to stay focused and go deeper. But they also demonstrated the energy and enthusiasm, and fresh ideas of teachers “fresh out of college.” What a wonderful combination!

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