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## 1997–2000 • A Study of Teacher Learning and Student Reading Outcomes in an SLI Professional Development Network

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From 1997 to 2000, SLI researchers studied changes in teachers' conceptions and classroom practice related to reading in their content areas and studied the impact on these teachers' students' reading achievement. The group of teachers comprising the Strategic Literacy Network (SLN) met for a total of 42 hours per year of professional development from 1997-1999. The SLN included cross-disciplinary teams of middle and high school teachers from San Francisco Bay Area public schools.

The central activity of this professional learning community was an extended process of "student literacy case inquiry" outlined here briefly.

### **Strategic Literacy Network teachers engaged regularly in the following inquiry practices:**

- analyzing their own reading processes while working with the text materials they would see students read;
- analyzing the features, challenges, and knowledge demands of the text materials;
- analyzing student reading processes using evidence from the case
- reflecting on the case inquiry to consider classroom applications and connections
- practicing high-leverage reading strategies for transfer to classroom use

To support teacher knowledge growth in the teaching and learning of reading, SLI had developed student literacy learning cases and case inquiry protocols (described below) as materials for teachers' problem solving discussions within professional learning communities. The cases, based on case studies from the Literacy Task Force and Academic Literacy studies of ninth grade students, included print and video excerpts from interviews with students about their literacy histories, text materials, and excerpts from videotaped dynamic reading assessments in which students worked with these texts. The video excerpts were carefully selected to present teachers with contrasting reading performances from the individual students, presenting compelling puzzles for teachers and circumventing overgeneralizations about a student's reading proficiency from any single observation or assessment.

Design of the literacy learning cases was based on prior work, funded by the James S. McDonnell Foundation Program in Cognitive Studies for Educational Practice,



as reported in “Learning from Our Diverse Students: Helping Teachers Rethink Problematic Teaching and Learning Situations,” by Greenleaf, Hull, & Reilly, published in the fall 1994 issue of *Teaching and Teacher Education*, Volume 10, Number 5, pages 521 – 541.

The case inquiry process and protocols were designed to surface and develop teachers’ understanding of reading processes, comprehension strategies, text structures and demands, and student literacy resources and learning needs. The three-year study was designed to focus on the processes by which participating teachers develop these new understandings. The SLI research team drew on a variety of research methods to answer the following questions:

1. In what ways does case inquiry contribute to the development of secondary teachers in the domain of literacy?
2. What aspects of case inquiry are most productive of teachers’ development of expertise in this domain?
3. As teachers participate in inquiry-focused professional development, how does their expertise in the domain of literacy develop over time?

Data included audio- and videotaped small and large group discussions from professional development sessions; field notes and logs from these sessions; meeting artifacts such as handouts and easel notes; and session and end-of-series evaluations by participating teachers. Individual teacher data included written journals and reflections and pre- and post-series interviews grounded in classroom practice through teachers’ individual records of teaching in the form of course texts with accompanying lesson plans, assignments, and student work.

The interviews were guided by protocols yet gave teachers an opportunity to both display and reflect on their teaching practices and philosophies. Close content and discourse analysis of these interviews and case inquiry discussions led to the findings of the study. Longitudinal case studies of a subset of the participating teachers offered SLI researchers a view of the process of teacher change through inquiry-based professional development over time. Finally, each participating teacher tested a class of students at the beginning and the end of each year, using the Degrees of Reading Power standardized test of reading comprehension. This study is reported in a chapter by Greenleaf and Katz, “Ever Newer Ways to Mean: Authoring Pedagogical Change in Secondary Classrooms,” in the book, *Bakhtinian Perspectives on Language, Literacy, and Learning* edited by Arnetha Ball and Sarah Warshauer Freedman, Cambridge University Press, 2004.



## Teacher Learning in the Strategic Literacy Network

Contrastive analysis of twenty-nine participating teachers' applications, pre- and post-series interviews, written reflections, and classroom artifacts demonstrated that repeated engagement in collaborative case inquiry and discussion contributed to the development of secondary teachers in the domain of literacy.

### *Changes in Knowledge about Reading*

Participating teachers became aware of their own reading processes, making their tacit knowledge as skilled readers available for instructional purposes. Over time and through professional conversations about reading inquiries and literacy learning cases, teachers developed a technical language for talking about the reading process, particular reading strategies, and features of texts which they adopted for use in the classroom. Many teachers also reported growing personally as readers from their conscious attention to reading in the SLN, gaining more strategic control of reading a variety of challenging texts.

### *Changes in Pedagogical Content Knowledge*

In the beginning of the year, participating teachers tended to see their students as flawed and deficient readers. Over the course of the year, however, these teachers began to describe the reading problems they faced in the secondary classroom differently. At the end of the year, teachers defined their students' reading problems not as resulting from laziness or lack of motivation or from weak decoding skills, but to unfamiliarity with the demands of particular kinds of reading tasks and texts and a lack of strategic control of reading comprehension. Their identification of these reading problems came to focus on the text as a potential site of classroom inquiry and problem-solving. Teachers began to use students' comprehension errors and confusion as a map for instructional action, indicating a direction to the teacher about where next to take a class.

### *Changes in Ways of "Reading" Students*

Before participating in the Network, teachers primarily used student behaviors and written work as evidence of students' reading skills. At the end of the year, teachers were **listening differently** to students in the classroom **and hearing evidence of the ways students were making sense** of texts. This new attention to student thinking and learning processes with regard to reading created new possibilities for the classroom, including new roles for the teacher to play instructionally, new interactions between and among students and the teacher, and new roles for texts to play in classroom learning.



## ***Changes in Classroom Practice***

### **Changes in Repertoires of Practice**

In their practice-based interviews, these teachers described profound, yet subtle, changes in classroom practice resulting from their first year in the SLN. They experimented with a new repertoire of teaching strategies, including teacher and student think alouds and metacognitive logs; sustained silent reading; modeling of problem-solving processes with texts; Reciprocal Teaching and its component processes of questioning, predicting, clarifying, and summarizing; teaching text structures; and scaffolding instruction and practice to fade support over time. They also described a “lag time” during which they felt they were growing in knowledge and understanding before something “clicked” and made sense to them to implement in the classroom.

### **Changes in Teaching Roles**

Teachers began to interact differently with students and with texts in the classroom, making profound shifts in the roles they took toward student learning. Teachers moved away, on the one hand, from being primarily an entertainer and motivator of student reading, or on the other hand from being primarily a transmitter of information—a summarizer or interpreter of texts for students—to becoming an explicit teacher and guide to more productive reading processes, a collaborative inquirer and problem-solver, and a facilitator of student reading and learning.

### **Changes in Students’ Opportunities to Learn**

Many SLN teachers described how they had abandoned class texts and textbooks, along with any hope that students would read them in the beginning of the year. However, by the end of the year they described how they were now able to use class texts and to engage students in reading and talking about reading during class time. Because they had new understandings of reading processes and strategies and therefore saw students’ learning needs differently, they recognized and took up the many opportunities to teach reading that occurred in the classroom around class texts. As a result, students were engaged with more texts, were expected to do more reading, were offered more powerful conceptions of reading, and were offered more powerful strategies for approaching reading through the ongoing interaction of teacher, text, peers, and self in the classroom.



### ***Elaborations in Teachers' Initial Theories of Reading Development and Instruction***

Initially, participating teachers did not appreciate the complexity of factors that influence student reading engagement and proficiency. These theories and goals comprised orientations to reading instruction that shaped the opportunities students had to develop as readers, the roles students were offered in the classroom, and the roles teachers played in reading and subject-area instruction. Operating from these different understandings, teachers initially focused their classroom instruction in ways that could ultimately limit their students' literacy achievement.

Many teachers initially related how they spent a great deal of time and energy making reading activities fun and engaging for students in order to motivate them to read, while avoiding more challenging texts that seem distant to students' lives. Many teachers initially described students' lack of the background knowledge relevant to specific curricula or texts as presenting a barrier to comprehension that the teachers did not know how to surmount. Some teachers initially believed that decoding fluency would guarantee that comprehension of varied texts would proceed smoothly. Many teachers felt that fluency must be in place before students can use higher order thinking to make sense of texts. In each of these theories of reading and reading development, teachers initially took a *necessary* element of proficient reading to be *sufficient* for reading development. Findings from the study made clear, however, that teachers in the network elaborated their theories and understandings about reading over the course of the year, coming to see reading as complex and to view their own instructional roles and responsibilities in broader ways than they had in the beginning of the year.

### ***Patterns of Change Across Time: From Experimentation to Integration to Extension***

Over their two years of participating in the SLN, teachers moved from experimentation and exploration of a range of strategies and teaching approaches they encountered in the SLN in the first year, to focused adaptation and integration of a few strategies and approaches in the second year. In their second year of participation, teachers described their relief at being able to set up new kinds of routines, roles, expectations, and classroom structures that could support reading apprenticeships from the beginning of the school year. Their eager move from experimentation to integration describes, we think, a process that may be fundamental to classroom change.



Often teachers moved from experimentation to integration by experiencing what seemed promising in their own classrooms and by testing their own comfort with the feel of new teaching ideas. The strategies individual teachers chose to integrate and embed into their curriculum in a more systematic way in the second year of the SLN almost always bore a family resemblance to teaching approaches already part of these teachers' repertoires of practice or reflected these individual teachers' prior commitments or the priorities of their schools. Teachers' appropriations of classroom practices thus very often built from a known repertoire of practice to integrate new goals, new foci, and new roles for themselves and their students alike.

Specific comprehension strategies and ways of teaching these strategies were therefore useful pedagogical tools for SLN teachers, but teachers were not engaged in "implementing strategies" as they grew professionally in this work. They continued to teach many of the same kinds of lessons they had taught in the past, using many of the teaching strategies they had relied on prior to the SLN, but held their teaching in a larger conceptual framework that encompassed new forms and ideas. Teachers' new frameworks of understanding made a tremendous difference in what they were teaching and what students were having opportunities to learn.

Finally, toward the end of the second year of their participation in the SLN, teachers began to generalize their learning and extend it to other arenas. If year one was a process of exploration and experimentation, year two was a digging in and systematic application of new ideas in a limited arena. New ideas and approaches became deeply embedded in practice rather than used as curricular add-ons. About the time teachers began to experience the successes of this integration, they began to identify for themselves new challenges, new problems, and new areas in which they needed to begin to apply their learning. The developmental processes of experimentation, integration, and extension could characterize much learning, and much of the process of development for teachers, in particular. In this developmental process is a theoretical rationale for the kind of long-term engagement of teachers in ongoing learning that inquiry-based professional development affords.

## **Student Learning in the Strategic Literacy Network**

Each year of the study, participating teachers tested one of their classes, using the Degrees of Reading Power standardized test of reading comprehension. Like the students in the Academic Literacy class study at Thurgood Marshall High School, the students of Strategic Literacy Network teachers gained normal curve scores from fall to spring, narrowing the achievement gap between their performance and that of their grade-level

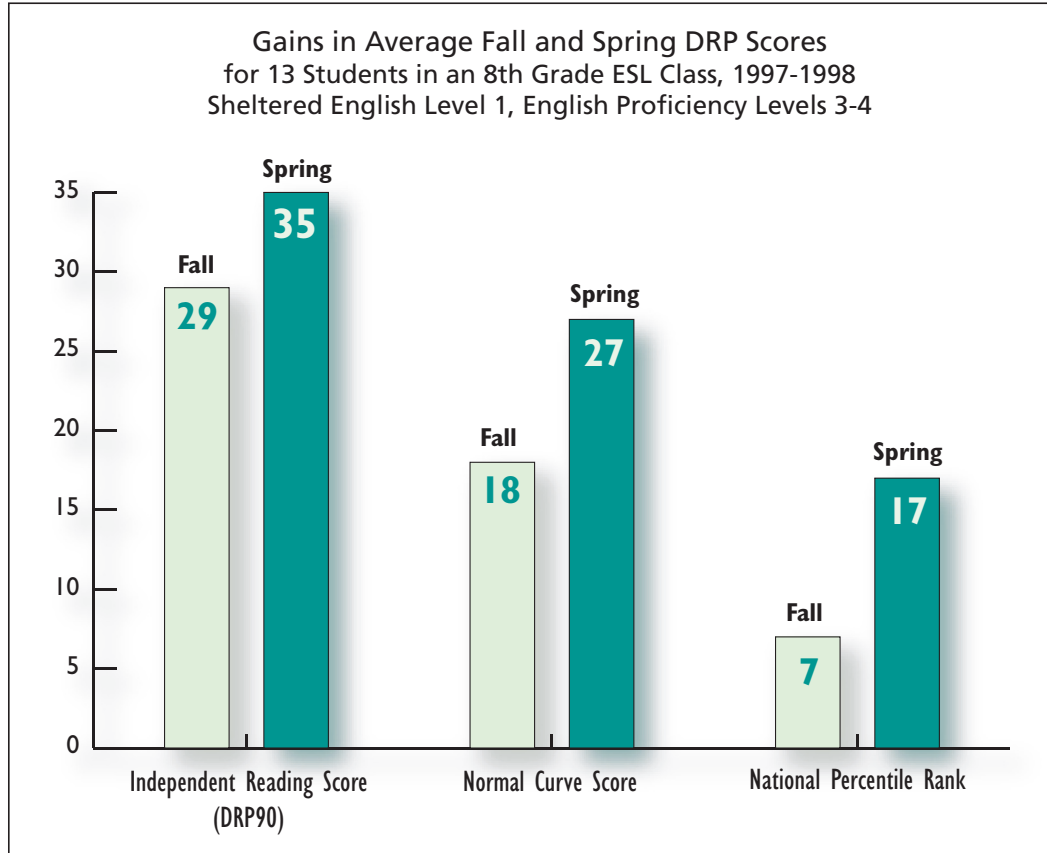


peers. A year's normal progress in reading would be represented by zero gain in normal curve ranking. Any growth in normal curve score indicates an acceleration of student proficiency.

During the 1997–1998 school year, when students' fall and spring scores were matched, average gains for middle and high school students increased significantly:

- The 302 middle school students in SLN teachers' classrooms gained 3 points in normal curve ranking, from 46.8 in fall to 49.5 in spring ( $t = -5.462$ ,  $df = 301$ ,  $p < .000$ ).
- The 72 high school students in SLN teachers' classrooms gained 2 points in normal curve ranking from 49.6 in fall to 51.5 in spring ( $t = -2.111$ ,  $df = 71$ ,  $p < .05$ ).

These classrooms included students whose literacy learning needs were great, as the following graph of growth for English learners in one eighth grade classroom indicates. While these students still have a long way to go, this graph clearly demonstrates that offering English learners increased reading opportunities with metacognitive support accelerated their reading development.



During the 1998–1999 school year, SLN teachers again administered the DRP. When students' fall and spring scores were matched, middle school students demonstrated a narrowing of achievement gaps between their performance and that of their grade-level peers:

- **The 355 middle school students in SLN teachers' classrooms gained 3 points in normal curve ranking, from an average of 38.6 in the fall to an average of 41.5 in the spring** ( $t = -6.850$ ,  $df = 354$ ,  $p < .000$ ).
- **The 47 English learners in this group gained 7 points in normal curve ranking, from 29.2 in the fall to 35.9 in the spring** ( $t = -5.998$ ,  $df = 46$ ,  $p < .000$ ).

Thus, while all of the middle school students in these classrooms accelerated their literacy growth, the English learners benefited even more from the SLN teachers' reading instruction than did their English proficient peers, accelerating their growth at an even faster rate.

Although the population of high school students in the 1998 – 1999 school year was abnormally high and did not show a gain in normal curve ranking from fall to spring, the lowest two incoming quartiles of middle and high school students in the SLN teachers' classes made impressive gains, again demonstrating a narrowing of the achievement gap for those students who were initially furthest behind:

- **The 228 incoming quartile 1 students in SLN teachers' classrooms gained 5 points in normal curve ranking, from 20.6 in the fall to 25.7 in the spring** ( $t = -8.694$ ,  $df = 227$ ,  $p < .000$ ).
- **The 107 incoming quartile 2 students in SLN teachers' classrooms gained just over 2 points in normal curve ranking, from 43.3 in the fall to 45.5 in the spring** ( $t = -3.224$ ,  $df = 106$ ,  $p < .01$ ).

The Strategic Literacy Initiative has continued to develop inquiry-based professional development routines and practices, and to disseminate these effective professional development methods broadly, through ongoing local networks as well as training for professional developers in National Institutes for Reading Apprenticeship. These professional development methods are described in “Building Capacity for the Responsive Teaching of Reading in the Academic Disciplines: Strategic Inquiry Designs for Middle and High School Teachers' Professional Development,” a chapter by Greenleaf and Schoenbach in the book *Improving Reading Achievement through Professional Development*, edited by Dorothy Strickland and Michael Kamil, Christopher-Gordon Publishers, Inc., 2004.

