Literacy Coaching Clearinghouse

PLCs Meet PCs: Technology-Supported Literacy Coaching Within and Between Disciplines

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The Challenge of Literacy Coaching in Multiple Disciplines

The intellectual challenge of secondary school literacy coaching can be daunting. The International Reading Association's *Standards for Middle and High School Literacy Coaches* include not only mastery of the principles of adult and student learning but also thorough knowledge of the conceptual framework, diverse literacy demands, and appropriate instructional strategies for each content area (IRA, 2006). When working with math teachers, for example, literacy coaches need to understand the inductive reasoning at work in a textbook explanation of a mathematical concept and to recognize the potential for student confusion over seemingly simple vocabulary words with multiple meanings, such as "plane" or "function" (Ibid., p. 24). When working with social studies teachers, on the other hand, they must be prepared to help students evaluate and synthesize information from multiple sources that may represent conflicting perspectives. Their work with science teachers is often framed by the scientific method, whether they are supporting students in writing up lab reports or analyzing an article from *Scientific American*. With English teachers, however, they may be called on to help students comprehend, evaluate, and create material written in a huge variety of genres and text structures—from stream-of-conscious narrative to expository essay—with no consistent standard for judging quality.

In addition to this intellectual challenge, many literacy coaches face content teachers reluctant to acknowledge that students' literacy development is their business. When the cheerleading for a new literacy instruction strategy comes from someone outside of their department, content teachers can easily find a reason to resist it: "My students don't have time to write in journals with the unit test coming up next week." "Those graphic organizers don't work for the kind of reading we do." In many cases, this resistance in founded in true differences among the literacy demands of the disciplines being taught. As several literacy researchers have argued in recent years, teachers of adolescents need more than just a toolbox of generic cross-content reading and writing strategies to help their students succeed in secondary school and beyond; success in college and the modern workplace requires mastering high-level literacy skills that are often specific to each content area (Heller & Greenleaf, 2007; Shanahan & Shanahan, 2008).

These challenges suggest that if secondary schools are to see widespread, sustainable improvements in the way students' literacy skills are developed through content-area instruction, then the role of the literacy coach may need to be redefined—or, better, redistributed. As Carol Lee has argued, "schools need both general and domain-specific reading specialists" to effectively coordinate reading instruction across the curriculum (Lee in Torgesen et al, 2007, p. 124). Rather than relying on individual literacy coaches as repositories of both deep literacy knowledge and deep knowledge of multiple content areas, schools and districts should explore alternative structures in which responsibility for teachers' learning about student literacy is housed in multiple departments—not just in the literacy coach's office.

The Adolescent Literacy Collaboratory: How PLCs Meet PCs

The Adolescent Literacy Collaboratory is one model for sharing literacy leadership responsibility at the secondary school level. With the help of computer technology (PCs), it brings teachers and literacy leaders from multiple departments and multiple schools together to learn from and with one another in overlapping professional learning communities (PLCs). The Collaboratory was developed in 2003 at The Education Alliance at Brown University to help middle and high school teachers of math, science, social studies, and English language arts improve their students' learning through the use of research-based literacy instruction strategies. A year-long intensive professional learning program, it engages participating teachers at two levels. As members of interdisciplinary school

teams, they learn together in a series of face-to-face activities at school sites facilitated by a local literacy leader. As members of content-area groups drawn from multiple schools, they also learn through highly structured online interactions, supported by coaches from different schools who are full-time teachers of the same content area, and by a program facilitator, who is a literacy coordinator at a different school. In preparation for both sets of activities, each cohort—between 20 and 35 teachers and literacy leaders—begins with a five-day face-to-face institute.

The short-term goals of the program are to help teachers deepen their understanding of the research on effective adolescent literacy instruction; become skilled users of several literacy instruction strategies that work well with their own students; and become more experimental, reflective, and collaborative practitioners, so that they can continue to learn, grow, and share research and strategies after the end of the program. The longer-term goal is to help schools build an interdisciplinary team of literacy leaders whose work can catalyze wider-scale school changes in teaching practice and improvements in student achievement. The name was chosen to reflect the approach: collaborative professional learning in which the classroom is a laboratory.

The Collaboratory model was based on research findings that the most effective forms of teacher professional learning are long-term, job-embedded, curriculum-focused, and collaborative (Bransford, Brown, & Cocking, 2000; Hiebert, Gallimore, & Stigler, 2002). It was designed to combine the best elements of school-based professional learning communities (PLCs) and online collaborative learning. Integral to the program are DuFour's three core principles of PLCs: (1) ensuring that students learn, not just that teachers teach; (2) collaborating to analyze and improve classroom practice, and (3) focusing on student results (DuFour, 2004). The Collaboratory also draws on several learner-centered principles of effective online collaborative learning: an emphasis on constructing knowledge from both information and experience, providing for personal choice and relevance to individual (professional) interests, and learning through social interaction (Bonk, Wisher, and Lee, 2004).

Each Collaboratory participant is a member of two mini-PLCs within the larger PLC of 20-35 cohort members: a four- or five-person interdisciplinary literacy team from the same school and a four- to seven- person group of content-alike teachers or literacy leaders from different schools. (See Fig. 1.) Most interdisciplinary team interactions are face-to-face, but the content-group and cohort-wide activities take place in an online learning environment, where readings and other supporting resources are also posted. Thus, the program uses computer technology both to develop and to link PLCs.

To help participants grow as interdisciplinary collaborators as well as literacy experts in their own content areas, distinct but interdependent purposes and mini-professional learning communities were created for the face-to-face and online components of the program. The characteristics of these mini-PLCs are described in the table on the following page (Table 1 adapted from Brettschneider, 2009).

Figure 1. The Three Professional Learning Communities of the Collaboratory

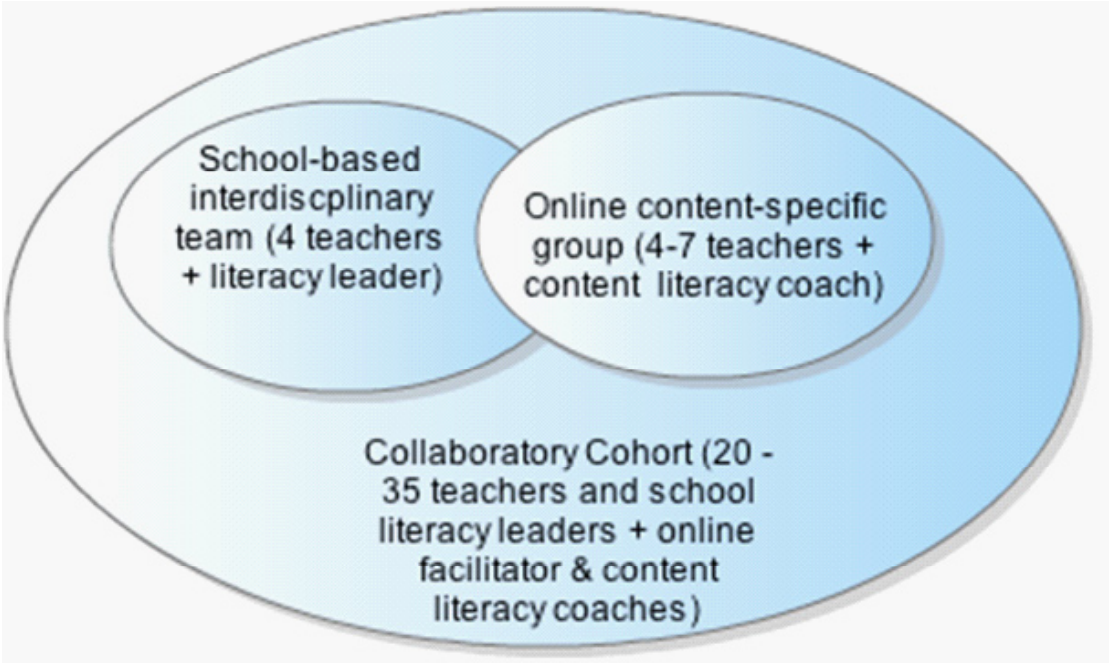

Table 1. Characteristics of the Two Mini-PLCs

MINI-PLC	CONTENT GROUP	SCHOOL TEAM
Main Form of Interaction	Weekly online postings in customized learning environment	F2f meetings (weekly or bi-weekly) & one-on-one observations (twice)
Purpose	Build disciplinary literacy instruction skills	Build team of literacy experts to support school PD goals
Peers	4-6 teachers of the same content area from different schools	4 teachers of different content areas; some share common students
Expert(s) / Leaders	Content-area literacy coach (practicing teacher from another school); program facilitator (literacy coordinator from another school)	Team leader (literacy coach, reading specialist, other teacher leader, or school administrator)
Activities	Exchange responses to research readings; drawing on class diagnoses, select appropriate literacy strategies to address class needs; share plans for and reflections on using new literacy strategies; create and give feedback on lesson drafts incorporating new literacy strategies; reflect on facilitator's feedback on videotaped lessons	Diagnose class reading needs based on assessment results; observe, videotape, and discuss colleagues' lessons; present and discuss clips from their own lessons; choose cross-content strategies to share with faculty outside team; refine strategy selection and use based on later student assessment results; plan other faculty-wide learning activities to support school literacy goals

Lessons Learned

Since it was piloted in 2003-2004, the Collaboratory model has been refined each year based on participant feedback and evaluation results. Several findings from these sources—including preliminary findings from a study of the program's impact on student reading skills—have more general implications for the structure and process of literacy coaching at the secondary school level. These are shared below.

Literacy coaching linked with intensive teacher study, experimentation, and collaboration can improve student reading performance in only one year.

Students of Collaboratory participants in the 2007-2008 cohort took the Northwest Evaluation Association's *Measures of Academic Progress* (NWEA MAP) reading assessment in the fall and spring. Based on student and school demographics, testing dates, and fall scores, they were matched with a "virtual comparison group" of students drawn from the NWEA national database. The students of Collaboratory participants had larger gains in their fall to spring scores than the comparison students, with 55% of participants' students meeting or exceeding the gains of the comparison students.

Participants also reported other encouraging evidence of student impact in their classrooms. One high school English teacher wrote the following:

> *I know that my students are better readers, writers, and thinkers. Not only do I have MAP scores that show this, I can SEE it for myself. When students say things to me such as, "Now, even when I read a book I choose to read, not one assigned for class, I am thinking of lower order and higher order questions to write down--I can't help it!" I KNOW I've been successful! That student has analyzed the process, and to me, that is a sure sign I have made real progress in the way kids think meta-cognitively about reading--and not just in my subject area.*

Students improve more when their teachers learn about literacy together.

In Collaboratory teams in which at least two team members taught the same group of students, the number of students meeting or exceeding the fall-to-spring gains of their comparison group rose to 60%. This finding supports the recommendation of Biancarosa and Snow that interdisciplinary team teachers should work together to reinforce key literacy strategies and concepts consistently across subjects (Biancarosa & Snow, 2006).

It was not surprising to see that students of Collaboratory teachers benefit from consistent practices and expectations from classroom to classroom. One literacy coach whose team adopted program facilitator Bill Clarke's cross-content annotation strategy of "directed notes" (adapted from Junior Great Books) explained the benefit in the following way:

> *Using directed notes over several classrooms in several different contexts was extremely helpful to students. Not only did they come to internalize the process through routine use (and we all know how valuable procedures*

and routines are in the classroom), they came to do it in many subjects and carry it over even to subjects where they were not expected to use the process.

Interestingly, a few months into the program, the math teacher on this coach's team had worked with a science teacher to adapt the directed notes strategy for use with readings typical in math and science classrooms; her changes were widely adopted by other math and science teachers in the Collaboratory after she posted them online. Here, then, is an example of content-specific collaboration working in conjunction with interdisciplinary collaboration to support student learning. According to the literacy coach, students found the directed notes strategy helpful even when—or perhaps partly because—its format changed to reflect the different literacy demands of a math or science class, as opposed to an English or social studies class.

Focusing on a few assessed student needs can motivate teachers to stay on track.

The NWEA MAP reading assessment provides overall scores that help to place students quickly in the context of their peers, but it also allows teachers to analyze their students' reading skills along fairly specific lines (e.g., comprehension of informational texts, evaluation of literary texts, word knowledge, etc.). After analyzing their students' fall scores, Collaboratory participants were asked to choose two particular skills that would be the focus of their literacy work with students during the year. For 10 of the 14 reading skills chosen by participants (71%), fall to spring gains were greater than the overall fall to spring gains of the comparison students. (Direct comparisons by reading skill were not possible.) This finding suggests that, at least in the first year of literacy coaching with a particular teacher, less is more; it may be best to help teachers target a small number of student literacy challenges for which they have clear evidence. Feedback from participants also suggests that their personal involvement in the analysis of student assessment data (often with the help of their local literacy leader) served as a significant motivator to complete the core work of the program: identifying, experimenting with, and adapting appropriate strategies for addressing the needs that surfaced in their analysis.

"Embedded" content-area literacy leaders can multiply the impact of a literacy coach.

The Collaboratory teams that have been most successful at sharing their learning with faculty outside the team—and getting those faculty on board with new instructional practices—tend to be those whose leaders find creative ways of working within their school's existing professional learning structure. Although the Collaboratory does require participating teams to select three cross-content strategies during the year to share with non-team colleagues, the processes and culture for informal and formal professional learning vary from school to school; therefore, the program's guidelines for how this outreach takes place are fairly flexible. Some of the more effective approaches to seeding interest and uptake among non-team colleagues have included team members' informal contributions to weekly department or grade-level meetings, with reports about the positive impact of strategies they've been using and copies of relevant graphic organizers or templates; demonstrations of literacy strategies during faculty or department meetings; and incorporation of literacy strategies into a lesson taught as part of a school-wide unit, so that all teachers and students have a common context for discussing them. When school administrators support the work of literacy teams by making time for the kind of school-wide sharing, experimentation, and reflection that are necessary for sustainable changes in practice, the impact of these embedded literacy leaders can go farther still (Biancarosa & Snow, 2006; Torgesen et al, 2007).

External networks can help to drive internal change.

Research has shown that combining external teacher networks with school-based professional development can multiply the impact on teacher and student learning (Morris, Chrispeels, & Burke, 2003). Feedback from Collaboratory participants suggests that the integration of school-based interdisciplinary team activities and online content-specific collaboration provides a level of motivation that might not be present in a purely online course or a cross-content school PLC meeting with no discipline-specific conversation. For some participants, this motivation opened their eyes to a whole new toolkit of teaching strategies, while for others it helped to spur a move from passive familiarity with strategies to active implementation. A high school chemistry teacher explained the impact of the program the following way:

> *By requiring me to create lessons, have them videotaped, then critiqued by my colleagues, the Collaboratory forced me to use strategies with which I was already familiar in my classroom. This had a HUGE impact, as once I actually tried various strategies, I found what a difference they made in my classroom, not only for learning, but for behavior as well.*

Final Thoughts

The Adolescent Literacy Collaboratory represents one way to distribute the challenging task of literacy coaching across multiple departments, while still capitalizing on the tremendous power of an effective coach to facilitate school change. It provides a structure and network to jump-start this change, and when the year is completed, a team of literacy cheerleaders who can tell their colleagues in science, math, social studies, or English, "Literacy is our business, too, and here are some strategies that worked for my students."

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