
Refining the Working Knowledge of Experienced Teachers

Through focused observation and collaboration with mentors, experienced teachers assimilate research-based practices into their existing repertoires.

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When districts adopt new programs, they often substitute new practices for old. The process of substitution increases the chances that today's solutions become tomorrow's deficiencies. An emerging view of professional development recommends the enhancement of current practice by integrating research-based strategies into the teacher's classroom repertoire (Smylie 1988). Enhancement activities seek to develop and refine a teacher's *working knowledge*, which in our view is a complex task and a critical one to improving the achievement of at-risk students (Gersten and Woodward 1990).

Here we describe an enhancement program in an urban elementary school, where 97 percent of the students are eligible for free and reduced lunch and where 70 percent scored below grade level in reading achievement on standardized tests. The foundation of the program, which calls for intensive collaboration between teachers and master teachers, is a straightforward set of teaching strategies and principles translated from current research on reading and literacy instruction (see fig. 1). The strategies are a mix of the research on effective teaching of at-risk students (Brophy and Good 1986, for example)

and more recent principles derived from cognitive psychology (for example, Palincsar and Brown 1988). All have proven empirical support. While this point is often taken for granted, recent reviews of staff development (Guskey 1990, for example) attest to the limited research supporting many popular practices.

As we expected, most of the eight teachers involved in the project knew about the principles, but only a few routinely applied them in their daily teaching of low-performing students. Some teachers had tried the techniques, but they hadn't taken hold.

Our intent was to help teachers tailor new strategies to their needs and those of their students. We expected that both conceptual and behavioral change would be gradual and, further, that the collaboration might be lengthy, sometimes lasting up to two years. We envisioned it as an *intensive, long-term, and intimate process*.

The Mentor/Teacher Relationship

Mentoring was done by a team consisting of one university researcher and one district staff development specialist. While participation was not strictly voluntary, the level of involvement and scope of the intervention was determined by the needs and interests of the teacher.

In both classroom observations and dialogue sessions, our focus was always on those students who the teacher and the mentor believed needed additional help in reading and language arts. These often included students who were receiving special education or remedial instruction for part of the day.

First, each teacher and mentor team met informally to identify any concerns. Then the mentor observed the classroom twice, focusing on the constructs listed in Figure 1. After the first two observations, the mentor shared his or her perceptions with the teacher and discussed options for change.

Over time, in most cases, informal working partnerships evolved between teachers and mentors. Having an explicit set of principles and strategies to address facilitated their development of a shared language. The spirit of mentor/teacher discussions became increasingly dynamic. Together the teacher and the mentor assessed the impact of new strategies on the lower performing students. Trying out new techniques in this context helped the teacher work out the kinks of a new approach. Moreover, the mentor was able to guide the teacher toward understanding the direct connection between the specifics of teaching — the timing of feedback, the type of question asked, the amount of support provided — and their effects on student learning and motivation.

Teacher-mentor discussions always returned to this principle. Both parties would examine — in detail — the effects of a specific aspect of instruc-

tion on students' performance and comprehension. Expecting this kind of dialogue, most teachers became more reflective during and after each lesson. They were more aware of what they were doing in class and how students were reacting to a new strategy. In some cases, teachers were able to provide detailed, perceptive accounts of the day's lesson, where and why a student may have encountered difficulty, and what they did to remedy the problem.

Recognizing the interconnectedness of teacher efficacy and student success, we focused on promoting a cycle of success in classroom instruction. By helping teachers to select concrete, realistic, and easy-to-implement practices, we encouraged successful experimentation by most of them. By drawing on research-based practices known to enhance student success, we ensured the changes would result in observable improvements in students' performance. Once

a strategy was attempted, regular visits and clear feedback by mentors supported continued use. Mentors stressed flexibility, encouraging teachers to modify the strategy to better fit their classrooms, while protecting those aspects of the strategy directly linked with student success.

The following two case studies are drawn from our initial work with eight classroom teachers. They illustrate the process we used to translate research practice in a meaningful, individualized fashion. They also give a sense of the possible range of approaches to collaboration.

Jamie: Initiating a Cycle of Success

Jamie has taught for 25 years. Her classroom has the well-managed and organized, but warm, feel of a veteran teacher. She expects her students to work; little time is wasted. It is also clear that she is fond of the students, and they of her.

Most of her career has been spent teaching upper elementary and junior high grades. Three years ago, desiring a challenge, she requested a transfer to a school with a large number of low-achieving students. At the time, she didn't realize that, as a 6th grade teacher, she would be working with eight students who could barely read. Jamie told us that she was feeling both overwhelmed and a little sad about her students' prospects for survival in junior high school.

Jamie's major goal, she explained at the first meeting, was to help the students learn to read. She was dissatisfied with the district's approach, which consisted of placing the lowest readers in a 3rd grade basal series. Most of the students had "been through" the book before, and while they still could not read the material easily, they were bored by the content and humiliated by having to read

again what they knew was a 3rd grade text.

After explaining the observation process to Jamie, the mentor observed two of her reading lessons for below-grade level readers. The mentor noticed some excellent features: Jamie's definitions of difficult words in the story were vivid, imaginative, and clear. The students were obviously motivated, and they felt free to ask her questions.

There were also obvious problems. Too little academic interaction, for example. While Jamie explained the vocabulary words, she did not have a method for checking for understanding. Students didn't discuss the words or use them in sentences; and Jamie didn't prepare the students for difficult words in the story. In fact, during round-robin reading, many students missed the words Jamie had put on the board. Our observational notes indicated that students tended to miss one word out of every five when they read from the text. When they made errors, she gave them many hints or clues. This technique tended to backfire; the students appeared embarrassed and still failed to come up with the "right" word. In addition, these "fishing expeditions" slowed the pace of the story reading. In general, the round-robin reading seemed frustrating for students and teacher alike.

When the lesson ended, the students returned to their seats to read two more pages silently, complete a worksheet on the words Jamie had defined, and answer eight comprehension questions about the story. It was clear to us (and to the teacher) that, given the students could barely read the story orally with her support, none would be able to read the remainder of the story by themselves, let alone independently answer comprehension questions. During seatwork time, the mentor

FIGURE 1

PRINCIPLES FROM RESEARCH ON READING AND LITERACY INSTRUCTION

✓ Challenge

- high expectations
- a balance of learning activities that require conceptual understanding

✓ Success

- mastery within and across lessons

✓ Involvement and Engagement

✓ Feedback

- frequent and immediate
- a balance of simple and conceptual

✓ Cooperation and Collaboration

- peer learning activities with the active engagement of the lowest students

✓ Scaffolding and Cognitive Strategies

- story maps and visual organizers
- reciprocal teaching

Enhancement activities seek to refine a teacher's working knowledge, a complex task and a critical one to improving the achievement of at-risk students.

spent a few minutes with each student, assessing oral reading fluency and accuracy.

Later that afternoon, the mentor met with Jamie, opening with a discussion of the strengths she had seen in the lesson. The mentor then reviewed the information collected on the students' current reading performance, which indicated they were both slow and inaccurate readers. Based on these data, and Jamie's own informal observations about the students' reading skills, they selected oral reading as a good place to start. The mentor confided to the researcher that she felt a clear need for both Jamie and her students to experience success immediately.

Recognizing the need to start small, the mentor asked Jamie to make only one alteration in teaching the lesson: have the students, both as a group and individually, read the difficult words on the board before story reading. The mentor encouraged Jamie to spend quite a bit of time on this, as the students needed a good deal of practice. She predicted that, as a result of the pre-teaching strategy, the students would make fewer errors when encountering the words in the story.

The mentor discussed with Jamie the need for the students to practice passage reading to increase fluency, highlighting the research support for reading fluency as a prerequisite to reading comprehension. To provide extra opportunity for oral reading practice, she helped Jamie establish a partner reading program (coordinated by the instructional aide).

The focus of the mentor's suggestion was building success for Jamie and her students. First, it addressed an intentionally small, manageable aspect of the reading lesson and was clear and easy to implement. Second, it had a high likelihood of leading to

improved reading performance for the students.

Within a week, Jamie noted the change in her students' reading. The mentor then suggested that Jamie make her expectations for the group's performance clear by setting an "error limit" for each day's reading. Each morning, Jamie told the group they would make no more than 15 errors. The kids responded well to the challenge, and we could sense greater confidence in their reading.

Observational data collected by the researchers indicated significant changes in how Jamie taught her lower performing students. Over two months, the amount of feedback she gave students doubled. She provided significantly more praise. Whereas in the past she had over-relied on volunteers, now all students participated during each lesson — even the weakest readers. Student engagement rates increased from 83 to 97 percent.

Weekly oral reading probes indicated a median growth of 35 percent in fluency over a four-month period. Accuracy increased even more dramatically — from an average of five errors a minute to an average of one error a minute.

Jamie reported that the students were smoother readers, volunteered to read more, were more confident in their reading, and experienced greater

enjoyment. In interviews, students told us that they liked the challenge of the error limits; a learning disabled student remarked that "reading is funner now." Discussing changes since the fall, another student told an interviewer, "The difference is we read with pride now."

The students' progress motivated Jamie to stick with the changes during those initial awkward stages. She noted, "The most convincing thing to me is that the kids like it and want to do it and get caught up in it. That's the only reason I'm staying jazzed about it. I have to do my homework on it, but it's worth it."

In a presentation for district administrators and staff development specialists, Jamie described the dramatic changes in motivation and reading performance of the eight students. She also shared how hard it was to change and how overwhelming the process still is at times. In her final interview, she expressed confidence in her ability to work effectively with the lower performing students in her class, though she realized it took an enormous amount of energy.

Luis: Effective Instruction Expanded

For 28 years, Luis has been teaching reading to primary grade students in inner-city schools. For three years he served as a mentor in a now-defunct bilingual program. He is widely respected by his peers and principal — for good reason.

His teaching style is an almost perfect embodiment of the effective teaching "direct instruction" model (Brophy and Good 1986, Rosenshine 1986). Student engagement and involvement are high; students are invariably successful in the learning activities of the 2nd grade curriculum. Luis provides students clear, imme-

diate feedback when they make errors and amply praises them when they read well or answer questions correctly. They seem to know what is expected of them at all times. The tone in the classroom is relaxed and friendly.

During the initial observation, we were amazed to see how fluently and accurately these at-risk 2nd graders were reading. We were even more amazed at how many of them read with expression. Yet Luis was not totally satisfied. Although there was no question that he could teach these children to read their basal texts fluently and accurately, he felt that they learned "exactly what they were taught, nothing more." For example, students did well on literal comprehension questions, but often floundered on questions requiring inferences. As an instructional tool, we observed how Luis broke complex questions into two or three smaller questions so that students succeeded. However, we agreed with his assessment that student success was overly dependent on this level of support. He noted weakness in students' background knowledge and language concepts and a limited "sense of inquiry" on the part of many students.

His hope, Luis explained, was "to really build up the kids' language . . . to do more on language and thinking starting in 2nd grade." He felt the district's required basal series — with its steady diet of simple, "cutesy" animal stories — provided him very little with which to work.

During our first observation, we noted some of the chopiness Luis had alluded to in our earlier discussions. He had added oral language activities into his reading lessons over the year. For example, in the middle of a story, he would ask students to tell him which things were inside the house

How to Help Teachers Succeed

ASCD has published two new books that emphasize mentoring as an effective, efficient, inexpensive, and enjoyable way to help new teachers in their first few years of teaching and to encourage other educators to pursue higher goals and expanded visions.

To help beginning teachers cope with the difficult work assignments, isolation, inadequate resources and reality shock of the first years of teaching, Stephen P. Gordon, in *How to Help Beginning Teachers Succeed*, proposes a Beginning Teacher Assistance Program (BTAP). BTAP is a formal, non-evaluative way for a district to provide support during the first three years or so of a new teacher's employment. Though not a cure-all, the BTAP's team approach to mentoring can improve teaching performance, raise teacher-retention rates, and — best of all — benefit students.

Likewise, in *How to Mentor in the Midst of Change*, Cheryl Granade Sullivan emphasizes the benefits of mentoring — for mentor, protégé, and students. Her guide to mentoring includes many succinct suggestions for informal mentoring approaches, including rapport-building activities, recognizing the accomplishments of both mentor and protégé, and learning to "speak the native tongue" of the protégé. Sullivan strongly advocates developing a shared vision for education and enjoying cultural diversity among both educators and students.

Call ASCD Order Processing at (703) 549-9110 to order these books. Please cite stock number and price, as follows. *How to Help Beginning Teachers Succeed*: ASCD Stock Number 611-91172; price, \$6.95. *How to Mentor in the Midst of Change*: ASCD Stock Number 611-92015; price, \$6.95.

—Carolyn Pool

and which outside the house. Students answered his questions — but with a good deal of difficulty. We noted, too, that the language activities were not well integrated into comprehension of the story, and the lesson would occasionally meander.

Our approach in working with Luis was influenced by his instructional sophistication and his concern for moving beyond the standard curriculum into more complex cognitive strategies (the most sophisticated variables in fig. 1). As a framework for discussion and analysis of cognitive instruction, we gave Luis two articles — one on reciprocal teaching (Palincsar and Brown 1988) and one on story mapping (Gersten and Dimino 1989). Though both techniques have been shown to enhance comprehension, neither had been researched in the type of multicultural setting in which Luis worked.

At our first meeting, Luis expressed great interest in trying out reciprocal teaching. However, true to his "one step at a time" direct instruction philosophy, he thought it best to teach only one of the four strategies first, rather than work on all four at once (as the researchers had done). He began with *prediction*, the strategy he thought would be both the easiest to teach and the most exciting for his students.

During the next observation, we noted much more dialogue and discussion among students, whereas before, virtually all discussion was teacher-directed. We also saw how the use of *prediction* led the students to talk about other aspects of the story and to develop hypotheses about character motivation. Luis, too, was struck with how much this one strategy enhanced students' involvement in the lesson.

Luis then moved on to story

mapping, which he and the students also enjoyed. He began alternating round-robin reading with partner reading. He regularly augmented the basal reader with children's literature.

Our final observations revealed a subtle change in the classroom: a thoughtful balance between structured activities and more informal group activities. The room remained relaxed, warm, productive — but it had become a bit more spontaneous.

During the final interview, Luis was clearly beginning to feel more comfortable with his experiments with cognitive strategy instruction and collaborative learning. He described his amazement at some of the progress. Two of the students who had been in his lowest reading group were now performing at a par with his very highest achieving students.

At the same time, he noted that "the [new] approach in and of itself was not going to make the low group move up to the level of the high group." He was still grappling with ways to provide systematic feedback to students experiencing difficulties while keeping the collaborative learning structure intact. "Just because they're out on their own [doing partner reading or working on a group story map] doesn't mean that the teacher isn't worrying, that he isn't interested in what they're doing."

Overall, Luis was optimistic about the changes. "When they [cognitive strategies] have been implemented daily, the children become used to the routines. It's boosted their confidence. They have begun to have an idea of what comprehension is about."

Blending New Practices with the Tried and True

Recently McDonald (1989) urged those involved in school improvement to shy away from the type of intensive,

frequent observation-feedback process we have described. He concluded that "the problem with this strategy is that its directness is as threatening as it is powerful" (p. 210). His observations are astute. They parallel Little's (1987) conclusion that "closer to the classroom is closer to the bone — closer to the day-to-day performance on which personal esteem and professional standing rest. The prospects for conflict are high" (p. 35).

While recognizing these concerns, we remain optimistic about the potential of substantive interactions about classroom teaching based on focused observation. There are clear strategies that can avoid conflict and ways to break through this barrier.

During the end-of-year interviews, we asked all eight teachers to discuss their comfort with this style of professional activity and how well the type of feedback fit their personal style. They also rated these two aspects on a 1 to 5 scale, with 5 extremely comfortable/compatible and 1 extremely uncomfortable or incompatible. Mean scores were 4.6 on compatibility of style and 4.2 on comfort level. The rating indicated that all teachers but one liked the style of feedback and that all teachers felt comfortable with the process.

In an analysis of why school reform so often fails, Deal (1990) noted the need for educators "to navigate the difficult space between letting go of old patterns and grabbing on to new ones" (p. 12). Employing new practices will almost always be awkward. With systematic support and feedback from a mentor teacher and the use of a common conceptual framework, adjustment to new practices takes on a different meaning. There are opportunities to reflect — to ask, "How am I doing?" "Does this technique really make sense for my kids?" "How

comfortable am I with this approach?"

These opportunities support the delicate process of letting go of the familiar and assimilating the new — a process central to enhancement.

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