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Reading and Writing in the Content Areas Pages 70-73

Seven Literacy Strategies That Work

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A schoolwide commitment to reading and writing strategies in all content areas has had a positive impact on student achievement at Herbert Hoover High School.

By all accounts, Herbert Hoover High School in San Diego, California, was a school in trouble. Achievement scores were the lowest in the county and among the lowest in the state. Teacher morale was low; turnover was high. Crime, poverty, and basic skills were the most frequent topics of conversation on campus. At one point, a consultant suggested that we should not expect more from our 2,200 students: 46 percent of them are English language learners, 100 percent qualify for free and/or reduced lunch, and 96 percent are members of minority groups.

We did expect more, however. Every teacher at our school had been working hard to meet students' needs. We had a health clinic, counselors, and a great library—but our students were not achieving. Then, in 1999, we formed a staff development committee of teachers, administrators, and San Diego State University colleagues. Together, we identified seven instructional strategies that would permeate the school at every level. We wanted the strategies to be transparent to the students, and we wanted literacy strategies in content-area instruction to become common-place—across English, science, social studies, art, physical education, music, and shop. After the school's governance committee approved these strategies, we expected every teacher in our school to use them.

Equally important to the commitment from teachers was our commitment to them. This school had seen many reform efforts come and go, and staff members were exhausted from shifting priorities. We needed an unswerving focus. Over the next three years, we worked on a professional development plan that centered on our adopted strategies, and the results seem to support our efforts.

Our Gates-MacGinitie scores, for example, which we use to measure reading achievement, have increased from an average 5.9 grade-level equivalent to an average 8.2 grade-level equivalent. Although these scores remind us that student achievement at Hoover still has room for growth, we are encouraged that the average student now reads more than two grade levels higher than three years ago. In addition, we met our state accountability targets for the first time in a decade. California uses its official accountability score, the Academic Performance Index, to encourage improved school performance by setting an accountability target for each school based on its assessment results. In 1999–2000, with a baseline score of 444 and a target of 462, Hoover achieved a score of 469. On another measure of reading scores, the Stanford 9, Hoover's 9th graders exceeded district growth between 1998 and 2001; the district's scores increased by 1.5 percent, and Hoover's by 2.5 percent. In other words, our students are catching up, and the gap is closing.

Seven Defensible Strategies

The link between strategic teaching and student learning is the keystone of our professional development plan. Teachers need ongoing professional development that allows for growth in expertise across departments and with years of teaching experience. All staff members need to study each strategy, practice it in their classrooms with peer support, and eventually assume the responsibility for delivering future staff development.

After reviewing research evidence on the efficacy of the strategies, teachers quickly adopted the phrase *seven defensible strategies* as part of the high school's lexicon. The specific instructional strategies we selected were read-alouds (or shared reading), K-W-L charts, graphic organizers, vocabulary instruction, writing to learn, structured notetaking, and reciprocal teaching (Fisher, 2001). Teachers attended monthly preparatory meetings to read research reviews of the strategies, discuss the successes and challenges of implementing the approach, and use videotapes of their classes to model the strategies for their peers.

We also created posters of the seven strategies for classroom use so that teachers could refer to them in the course of instruction and students could become familiar with the names of the strategies and their use.

Read-Alouds

A read-aloud—or shared reading—is one of the most effective ways for young adults to hear fluent reading (Allen, 2000). Our literacy plan advises that teachers read to their students every day in every class for at least five minutes. Some teachers read the text aloud while students listen; other teachers read the text aloud while students read along. Most often, the selections are not from the textbook; instead, teachers select other materials that build students' background knowledge, provide them with interesting vocabulary words, and ensure they are hearing fluent reading.

For example, an art teacher recently read aloud the picture book *My Name is Georgia* (Winter, 1998) before displaying some of Georgia O'Keeffe's work. Nearby, a U.S. history teacher used an overhead projection to share a newspaper dated September 1, 1939, announcing Germany's invasion of Poland. Both teachers noted that these literacy experiences built and extended background knowledge.

K-W-L Charts

K-W-L charts (Ogle, 1986) are a great way to hook students into learning. These language charts start with the question, "What do you *know* about the topic?" Following this discussion, students are asked, "What do you still *want* to know about the topic?" Once the unit of study has been completed, the language charts are used again and students answer the third question, "What did you *learn* about the topic?"

As a way to open her unit of study on the book *Seedfolks* (Fleischman, 1997), an English teacher first asked her students what they knew about community gardens. Their responses included "My grandma has one with lots of flowers," "We use them to grow vegetables," and "Poor people can grow something to eat."

Their responses to what they wanted to know included such questions as "Why do people like them?"; "What can you grow in San Diego?"; "How much land do you need?"; and "Are community gardens legal?"

When they had finished the book, visited a community garden, and tried to grow their own plants, the teacher returned to the language chart and asked her students, "What did you

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learn?" Their responses included such comments as "It's not about growing food; it's about having space," "Gardening helps you relax," "The garden was a place for people to meet and talk," "This writer's cool; he knows how to tell a story," and "Growing food is really hard." Like many other teachers we have worked with, this classroom teacher reports that using K-W-L charts helps students organize their inquiries.

Graphic Organizers

Graphic organizers provide students with visual information that complements the class discussion or text. Organizers come in many forms (see Wood, Lapp, & Flood, 1992). Students at Hoover consistently report that the graphic organizer is the most helpful strategy that we employ. For example, a science teacher placed on the board at random a number of magnetic strips with terms on them related to the concept of *matter*. The teacher invited individuals to come to the board to create a graphic representation of the information they had been studying. He also asked that they draw lines and write in the relationships between the words. One student moved the word *neutron* under the word *nucleus* and wrote "contains" between them. She understood that the nucleus contained neutrons. The next student drew a circle around the words *nucleus*, *neutron*, and *contains*. He then added the word *electron* to the outside of the circle and wrote "spins in the shell." The science teacher was pleased to see evidence of the student's understanding of this atomic unit's orbital behavior.

Vocabulary Instruction

Student achievement data consistently reported that vocabulary scores at Hoover were low. It seemed that every teacher focused on different words and used different approaches for teaching vocabulary. Many considered vocabulary knowledge to be the domain of English or elementary school teachers. We decided to focus our professional development on transportable vocabulary skills—that is, skills that students could use across content areas. We studied word families, prefixes, suffixes, word roots, vocabulary journals, and word sorts (Blachowicz & Fisher, 2002).

For example, in an algebra class, the teacher wanted his students to understand that the vocabulary words that he selected had both general and math-specific definitions. He asked students to fill out four columns in special vocabulary journals. In the first column, students wrote a list of words, including *variable*, *equation*, and *binomial*. Then the students wrote the common definitions of each term in the second column and the math-specific definition in the third column. In the final column, students identified where they had found the accepted math definition; some cited the page in the algebra textbook, while others noted a Web site address or a poster on the bulletin board. In the past three years, teachers have noted that their students' vocabulary knowledge is becoming increasingly transportable across content areas. This focus on vocabulary acquisition is yielding dividends: The vocabulary subtest on the Gates-MacGinitie has increased 16 percent during the past three years.

Writing to Learn

We agree with Fearn and Farnan (2001) that reading, writing, and content learning are related. Teachers use writing-to-learn strategies at the beginning, middle, or end of class to help students inquire, clarify, or reflect on the content. The student thinks for a minute or so, then writes for about five minutes. Some teachers begin class with this strategy to help students focus on the topic. Students told us that it was difficult to think about a social conversation that they had had earlier in the day when they were actively writing about the stock market crash. Other teachers conclude their classes by asking for a summary of what students had learned in class, for a description of one highlight of the class, or a prediction of

what the class would study the next day. Regardless of how teachers implement this strategy, writing helps students think about the content, reflect on their knowledge of the content, and share their thoughts with the teacher.

Structured Notetaking

We implemented structured notetaking because many students did not have a repertoire of study habits that helped them to do well. Most Hoover students use Cornell notes (Spires & Stone, 1989). The students draw a vertical line about two inches from the left side of the paper, log main ideas and key words to the left and details to the right of the line, and write a brief summary of the lesson at the bottom of the page. Teachers throughout the school quickly noticed the implementation of this strategy because they realized that they no longer had to devote instructional time to teaching a study technique. Other teachers have remarked that notetaking is not simply a way to record facts; it also leads to deeper student engagement and reflection.

Reciprocal Teaching

This strategy has been the most difficult for teachers to incorporate into their lessons. The teachers who use it, however, consistently report that it is the most effective way to engage readers with texts. Students also report that they read and understand more when they use reciprocal teaching than when they read the text independently. Reciprocal teaching (Carter, 1997; Palincsar, 1984) allows students to become the instructors of the content that they are studying. Working in groups of four, the students read a text passage together, following a protocol for predicting, questioning, clarifying, and summarizing—skills that teachers have modeled over a series of lessons until students are comfortable assuming these assigned roles. These student-directed discussion groups can then monitor their comprehension and reinforce their understanding.

In a physical education class, for example, the teacher introduced the rules of volleyball by providing students with a text that explained all the rules of the game. He could have explained the rules verbally, but he knew that reading, asking questions, and clarifying the rules in small groups would both foster literacy skills and increase his students' understanding of the game. When we overheard a student remark, "Hey, isn't this reciprocal teaching?" we knew that we had succeeded in making this strategy clear to our students.

The Benefits

The focus on these seven instructional approaches has benefited the staff of Hoover High School in a number of ways. The shared decisions of the staff development committee and school governance helped us articulate a schoolwide focus on instruction. Subsequent professional development has built the teachers' ability to implement each practice. The administration incorporates each strategy into accountability plans only after teachers have sufficient professional development on using the approach. Administrators, department chairs, university partners, and teachers now have a list of common expectations for discussion and planning.

Student achievement is up, indicating a positive trajectory for future growth and greater opportunities for our graduates. Last year, 40 seniors were admitted to California universities, including 12 students who were accepted to Berkeley, arguably California's most selective public university.

Although we are pleased about the outcomes for these students, we recognize that we must continue our focus on teacher development to improve student achievement for all. At Hoover

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High School, strategic teaching encourages student learning. We know that excellent teachers have a positive impact on student outcomes. Our role as university partners and administrators is to ensure that our teachers have the tools to be excellent.

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