

The Case for Strategic Tutoring

When after-school tutoring sessions focus on developing long-term skills, at-risk students can become independent and successful learners.

Students who have yet to attain the academic and social competencies required to succeed in school are caught in an academic gap. They face the possibility of being undereducated, underemployed, and underprepared to participate successfully in the 21st century. Theodore Sizer (1996) fears that society's failure to address the needs of these students dooms many to a life of depending on other people for a living.

In response to this serious challenge, parents and educators are searching for ways to increase the academic competence of students. Increasingly, groups are advocating for after-school tutoring programs in which teachers, paraeducators, and other adults provide one-to-one support to reduce the gap between what students are expected to know and what they actually know and can do.

But before we endorse all after-school tutoring programs, we should examine those that close this academic gap. Indeed, some forms of tutoring may be more harmful than helpful. For example, Steve Carlson (1985) suggested that subject-matter tutoring for special education students by special education teachers rarely helps students acquire the skills necessary to become independent thinkers and learners. Other researchers have reported that tutored students achieve minimal or nonexistent performance gains. Specifically, Mark Farr (1998) found that tutored students' grades in physical science classes showed little or no change after students received tutoring in an after-school program.

How, then, do we create after-school tutoring programs that encourage independent learning?

An Effective Model

Strategic tutoring teaches students strategies for learning how to learn and perform while they also receive help with class assignments (Hock, Deshler, & Schumaker, 2000). Not only do students receive short-term support, but they also learn powerful strategies that help them perform independently in their classes.

A learning strategy is how a person thinks and acts while planning for, completing, and evaluating performance on a learning task. Learning-strategy instruction teaches students how to learn and perform specific tasks (Deshler & Schumaker, 1986). For example, if students must complete a number of math problems and prepare for math quizzes and tests, a strategic tutor would quickly introduce the students to a strategy for solving the math problems while also helping them complete the homework problems.

The strategy might include several steps. The tutor could even create acronyms to help students remember the steps later. For example, the learners first *Map out*

the problem by carefully reading it, underlining key words, and determining what to solve. Then, they *Analyze the problem* by identifying the type of problem, looking for similar problems in the textbook, and estimating the answer. Next, they *Take action* by selecting a method or formula. Finally, the students *Have a look back* by comparing the answer with the estimate and by checking their calculations. The students remember the strategy because the first letters spell *MATH*.

By practicing the strategy repeatedly and under the direction of a strategic tutor who provides regular feedback, students learn to solve homework problems and, more important, to solve problems—independently and successfully—on quizzes and tests in the classroom.

Four Phases

When students participate in tutoring sessions, the strategic tutor guides them through four key instruc-



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tional phases. First, the tutor *assesses* the students' knowledge of the assignment and the effectiveness of their approach to the task. If the students' strategies are ineffective or inefficient, the tutor proceeds to the second phase of instruction—*constructing*. During this phase, the tutor shows the students a new strategy, which, in most cases, is a combination of the successful elements of the students' old strategies and the tutor's strategy.

For example, when asked how he currently wrote themes for his English class, one student replied, "I write the theme and turn it in." The tutor responded,

That's great, Bill. Writing the theme and turning it in is very important. And if we add a few steps to your strategy, I'm sure the grades you earn on your themes will get better. What if you brainstormed before you started writing and then organized those thoughts? Then you could write a draft and revise and edit it. And then you turn in the final copy. Now your strategy includes brainstorming ideas, organizing ideas, writing a draft, revising and editing the draft, and turning in the final copy.

After developing the new strategy, the tutor begins the *teaching* phase. The tutor teaches the strategy by modeling how to use it, checking the students' understanding, and providing support as the students apply the strategy to the assignment.

When tutors model strategies for students, they demonstrate how to complete each step so that the students have an opportunity to see an expert use the strategy. The tutor checks that the students understand the strategy and that they have taken notes on each

step. The tutor then acts as a guide while the students apply the strategy to the assignment. During this process, the tutor provides positive and corrective feedback, gives additional explanations and modeling, and helps whenever the students feel confused.

The final phase of instruction is called *transferring*, during which the tutor helps plan for the independent application of the strategy. For example, the tutor might cue the students to use the *MATH* strategy when they take an upcoming math test. In this way, tutors teach a strategy that not only helps students complete class assignments successfully, but also applies to similar assignments (Hock, Deshler, & Schumaker, 2000).

The Research

Several research studies demonstrate the effectiveness of strategic tutoring. The results of one study, conducted in an after-school tutoring program for at-risk junior high school students, indi-

cated that strategic tutoring improved the quiz and test performances of students enrolled in math, Algebra I, and biology classes. These students (including some with learning disabilities) improved their semester grades from *Ds* and *Fs*, which they earned while enrolled in regular tutoring sessions, to *Bs* and *Cs*, which they earned after strategic tutoring began.

This improvement reflects the dramatic and robust gains for all students who attended strategic tutoring sessions on a regular basis. For example, the student who made the smallest gains improved on average from 60 to 87 percent on math quizzes and tests (Hock, Pulvers, Deshler, & Schumaker, in press).

In addition, student knowledge of specific strategies also increased. After strategic tutoring, most students were able to describe useful strategies that were more complex than the strategies they had learned in their traditional tutoring sessions. The ultimate goal of



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strategic tutoring is to develop proficient and independent learners. The majority of students in this study maintained a high level of performance several weeks after finishing strategic tutoring.

In another study, researchers matched at-risk youth in foster care with a comparison group of tutored foster-care youth who had similar profiles and academic needs (Staub & Lenz, 2000). Students in the strategic tutoring sessions made gains in school performance that were slightly greater than the students in the comparison group. The mean grade point average of the comparison group actually declined by 0.04, even though the group received traditional tutoring support. In contrast, the mean grade point average of the strategic tutoring group increased by 0.37. The students in strategic tutoring improved their achievement test scores in reading comprehension, written expression, and basic math skills. On average, their grade-level achievement scores increased by 10 months during a four-month instructional period. In contrast, the students in the comparison group experience a mean gain of only 3.5 months during the same period. Thus, students in strategic tutoring actually closed the skill gap that they had experienced, whereas traditionally tutored students fell further behind.

Finally, the youth in the study significantly increased their knowledge of specific strategies and self-regulating learning behaviors (Staub & Lenz, 2000). Strategic tutoring improved student performances on quizzes and tests in general education classes; skill levels in math, reading, and written

expression; and knowledge of cognitive and metacognitive strategies.

What to Consider

Educators who are considering implementing after-school tutoring programs can draw several implications from these studies. First, the core purpose of the program should be clearly defined because it will determine, in large measure, student outcomes. Learner independence is not an outcome for students when tutors focus only on homework completion.

Second, if we expect tutors to teach students the knowledge, skills, and strategies necessary for learner independence, we need to provide them with well-designed professional development (Hock, Schumaker, & Deshler, 1995). Good instruction does not automatically happen in one-to-one tutoring. Some researchers at the elementary level have emphasized the importance of requiring as much as 65 hours of training for tutors, even when the tutors are certified reading teachers or special education teachers (Slavin et al., 1991).

Finally, strategic tutoring is only effective when students attend their classes and tutoring sessions regularly. Students who were tutored for short periods of time (four weeks or fewer), who did not attend class and take tests, or who attended tutoring sporadically were unable to become independent learners or to earn passing grades.

Both Strategic and Successful

As educators search for effective methods to improve the performance and quality of life for at-risk students, strategic tutoring can help by closing the gap between failure and success for

these learners. More important, students will be more strategic in their approach to learning and succeed in general education classes, even after they have finished their tutorial support. ■

References

- Carlson, S. A. (1985). The ethical appropriateness of subject-matter tutoring for learning disabled adolescents. *Learning Disability Quarterly*, 8, 310-314.
- Deshler, D. D., & Schumaker, J. B. (1986). Learning strategies: An instructional alternative for low-achieving adolescents. *Exceptional Children*, 52(6), 583-590.
- Farr, M. (1998). Nikerson high school physical science after-school tutoring program. *Journal of Critical Inquiry into Curriculum and Instruction*, 1(1), 41-47.
- Hock, M. F., Deshler, D. D., & Schumaker, J. B. (2000). *Strategic tutoring*. Lawrence, KS: Edge Enterprises.
- Hock, M. F., Pulvers, K. A., Deshler, D. D., & Schumaker, J. B. (in press). The effects of an after-school tutoring program on the academic performance of at-risk and students with learning disabilities. *Remedial and Special Education*.
- Hock, M. F., Schumaker, J. B., & Deshler, D. D. (1995). Training strategic tutors to enhance learner independence. *Journal of Developmental Education*, 19, 18-26.
- Sizer, T. R. (1996). *Horace's hope: What works for the American high school*. New York: Houghton Mifflin.
- Slavin, R. E., Madden, N. A., Karweit, N. L., Dolan, L., Wasik, B. A., Shaw, A., Mainzer, K. L., & Haxby, B. (1991). Neverstreaming: Prevention and early intervention as an alternative to special education. *Journal of Learning Disabilities*, 24, 373-378.
- Staub, D., & Lenz, B. K. (2000). *The effects of strategic tutoring on Casey Family Program foster-care youth*. Lawrence: The University of Kansas, Center for Research on Learning.

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