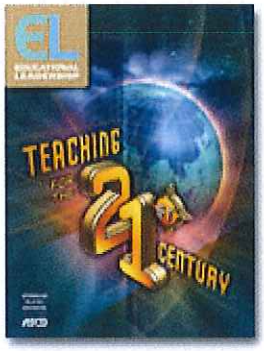
EDUCATIONAL LEADERSHIP



September 2009 | Volume **67** | Number **1**
Teaching for the 21st Century Pages 83-84

The Art and Science of Teaching / Six Steps to Better Vocabulary Instruction

Robert J. Marzano

Educational Leadership *is pleased to announce a new column this year—The Art and Science of Teaching—and a new columnist—noted researcher Robert J. Marzano. Internationally known for his practical translations of current research into effective classroom strategies, Marzano is cofounder of Marzano Research Laboratory, which synthesizes teacher research into components that schools can use for gains in student learning. A well-known speaker and trainer as well as a prolific book author, he draws from 40 years of experience in education. Each month, Marzano will focus on one teacher-tested instructional strategy in education.*

After examining for decades the research on instructional strategies and reflecting on my involvement in hundreds of studies, I can say one thing confidently: If you examine all the studies conducted on a given instructional strategy, you will find that some studies indicate the strategy improves student achievement whereas other studies indicate it doesn't.

Take, for example, the strategy of providing feedback. Researchers Avraham Kluger and Angelo DeNisi (1996) synthesized the findings from 607 studies on that strategy. They found that the average effect of providing feedback to students is a 16-percentile-point gain. However, more than one-third of the studies indicated that feedback has a *negative* effect on student achievement. Simply using a strategy does not guarantee positive results. Rather, it's *how* someone uses the strategy that determines whether it produces great results, mediocre results, or no results at all.

So what's a teacher, school, or district to do? Certainly, the answer is not to ignore the research. In fact, the research is the first place to start. You should scour studies to identify those strategies for which research shows positive effects on student achievement. Next, teachers, schools, and districts should conduct their own informal (and formal) studies on how well an instructional strategy works in their particular context—with their students, their grade level, or their subject matter. No strategy is foolproof. No strategy is proven. You have to see how it works in your particular setting.

They Won't Forget the Crocodile Teeth

In their research, classroom teachers have taught us something about how to best use specific instructional strategies. Let's begin with a strategy for teaching vocabulary referred to as *the six-step process* (Marzano, 2004). It involves the following steps:

1. Provide a description, explanation, or example of the new term.
2. Ask students to restate the description, explanation, or example in their own words.
3. Ask students to construct a picture, pictograph, or symbolic representation of the term.
4. Engage students periodically in activities that help them add to their knowledge of the terms in their vocabulary notebooks.
5. Periodically ask students to discuss the terms with one another.
6. Involve students periodically in games that enable them to play with terms.

Teachers use the first three steps when introducing a term to students. For example, assume a teacher is introducing the term *mutualism*. Instead of offering a textbook definition, the teacher describes the term or tells an anecdote that

illustrates its meaning (Step 1). The teacher might explain that the crocodile and a bird called the Egyptian plover have a relationship that exemplifies mutualism. The crocodile opens its mouth and invites the plover to stand inside. The plover picks things out of the crocodile's teeth. Both parties benefit: The plover gets fed; the croc gets its teeth cleaned. While explaining this relationship, the teacher might show students images found on the Internet.

In Steps 2 and 3, students try their hand at explaining the meaning of *mutualism*. They devise an explanation or an example from their own lives (Step 2). Next, they draw an image depicting what they think *mutualism* means (Step 3).

A few days later, the teacher reviews the new term using Steps 4, 5, and 6, which needn't be executed in sequence. The teacher might have students compare the meaning of *mutualism* with another previously studied term, such as *symbiosis* (Step 4). Students might pair up and compare their entries on the term in their vocabulary notebooks (Step 5), or the teacher might craft a game that students play using these terms (Step 6).

What Teacher Research Found

Over the last five years, I have been involved in more than 50 studies that involve this strategy. In all these studies, teachers used the strategy with one class but did not use it with another. Then they compared the results.

These studies have taught us several things about this six-step strategy. First, the strategy works at every grade level, from kindergarten to high school. Second, it works better if you use all the steps without leaving any out. In one middle school study, teachers found that the *whole* process enhanced students' achievement much more than the parts of the process in isolation did. Third, although the majority of studies indicate that the process enhances student achievement, some studies indicate that it doesn't.

For example, in one district in which 24 elementary teachers used the six-step process with one group of students but not with another, the average effect for using the strategy across all 24 elementary teachers was a 24-percentile-point gain. Six studies showed gains greater than 40 percentile points, but nine studies showed negative effects.

Happily, the research is also beginning to tell us what does or doesn't make the strategy work. Here's what we've learned so far:

- When students copy the teacher's explanation or description of a term instead of generating their own explanation, the results are not as strong. Ideally, student explanations should come from their own lives.
- The third step in the process is crucial—having students represent their understanding of a new term by drawing a picture, pictograph, or symbolic representation. When students do this step well, achievement soars.
- Games seem to engage students at a high level and have a powerful effect on students' recall of the terms. Games not only add a bit of fun to the teaching and learning process, but also provide an opportunity to review the terms in a nonthreatening way. After the class has played a vocabulary game, the teacher should invite students to identify difficult terms and go over the crucial aspects of those terms in a whole-class discussion.

Of course, we still have more to learn about this strategy. But for now, it's safe to conclude that it can be a powerful tool that teachers can use in classrooms at any grade level and in any subject area.

References

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a metaanalysis, and a preliminary feedback intervention theory. *Psychological Bulletin, 119*(2), 254–284.

Marzano, R. J. (2004). *Building background knowledge for academic achievement: Research on what works in schools*. Alexandria, VA: ASCD.

Robert J. Marzano is Cofounder and CEO of Marzano Research Laboratory in Denver, Colorado. He is the author of *The Art and Science of Teaching* (ASCD, 2007) and coauthor, with Mark W. Haystead, of *Making Standards Useful in the Classroom* (ASCD, 2008). To contact Marzano or participate in a study regarding a specific instructional strategy, visit www.marzanoresearch.com.

KEYWORDS

Click on keywords to see similar products:
vocabulary, teaching methods, instruction, educational research