

Cognitive Scientists Debunk Learning-Style Theories

By [Debra Viadero](#) on December 17, 2009 9:47 AM | [No Comments](#) | [No TrackBacks](#)

At one time or another, we've all heard "experts" assert that children have different learning styles. Some children, for instance, may be visual learners, while others best absorb information by hearing it. Other theories categorize learners as "assimilators," "divergers," and who knows what else. A teacher's job, according to this line of thinking, is to find out what student's individual learning styles are and tailor instruction accordingly.

A [study](#) published this week points up one big problem with these kinds of theories: There's no evidence for them.

Writing in the journal *Psychological Science in the Public Interest*, cognitive scientists Hal Pashler, Mark McDaniel, Doug Rohrer, and Robert Bjork argue that, of the thousands of articles published on learning styles in recent decades, few really put the theory to an adequate test.

To really determine if a theory is valid, the researchers write, a study would have to first classify students based on the theory being tested and then randomly assign them to one of several different learning methods. Students would also have to be tested before and after the instruction. If the theory is correct, the researchers said, then students would learn best when taught with the teaching methods that mesh with their individual learning styles.

Yet few studies use that or any kind of experimental method to test learning-style theory. And, among those that did, the authors found, several yielded results that contradicted the theory. The authors write:

We conclude therefore, that at present, there is no adequate evidence base to justify incorporating learning-styles assessments into general educational practice."

That's not to say learning-style theory would never work, the authors add. Dozens of such theories have been identified and some have never been tested at all.

What many of these theories give a name to may actually be a learning preference. And it's a long way from preferring to be taught one way to actually learning more when taught by a compatible instructional method.

I was curious as to whether the researchers included multiple-intelligence theories in their review. Pashler, the study's lead author, told me that the authors didn't see it as part of their charge. He said the "review was strictly focused on the question of whether there is evidence to support the utility of testing students' learning styles and selecting instructional methods accordingly."

Given the lack of evidence on that count, the report adds, the "widespread use of learning-style measures in educational settings is unwise and a wasteful use of limited resources."
