

# Learning Styles Debunked: There is No Evidence Supporting Auditory and Visual Learning, Psychologists Say

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Are you a verbal learner or a visual learner? Chances are, you've pegged yourself or your children as either one or the other and rely on study techniques that suit your individual learning needs. And you're not alone—for more than 30 years, the notion that teaching methods should match a student's particular learning style has exerted a powerful influence on education. The long-standing popularity of the learning styles movement has in turn created a thriving commercial market amongst researchers, educators, and the general public.

The wide appeal of the idea that some students will learn better when material is presented visually and that others will learn better when the material is presented verbally, or even in some other way, is evident in the vast number of learning-style tests and teaching guides available for purchase and used in schools. But does scientific research really support the existence of different learning styles, or the hypothesis that people learn better when taught in a way that matches their own unique style?

Unfortunately, the answer is no, according to a major report published in *Psychological Science in the Public Interest*, a journal of the Association for Psychological Science. The report, authored by a team of

eminent researchers in the psychology of learning—Hal Pashler (University of San Diego), Mark McDaniel (Washington University in St. Louis), Doug Rohrer (University of South Florida), and Robert Bjork (University of California, Los Angeles)—reviews the existing literature on learning styles and finds that although numerous studies have purported to show the existence of different kinds of learners (such as “auditory learners” and “visual learners”), those studies have not used the type of randomized research designs that would make their findings credible.

Nearly all of the studies that purport to provide evidence for learning styles fail to satisfy key criteria for scientific validity. Any experiment designed to test the learning-styles hypothesis would need to classify learners into categories and then randomly assign the learners to use one of several different learning methods, and the participants would need to take the same test at the end of the experiment. If there is truth to the idea that learning styles and teaching styles should mesh, then learners with a given style, say visual-spatial, should learn better with instruction that meshes with that style. The authors found that of the very large number of studies claiming to support the learning-styles hypothesis, very few used this type of research design. Of those that did, some provided evidence flatly contradictory to this meshing hypothesis, and the few findings in line with the meshing idea did not assess popular learning-style schemes.

No less than 71 different models of learning styles have been proposed over the years. Most have no doubt been created with students’ best interests in mind, and to create more suitable environments for learning. But psychological research has not found that people learn differently, at least not in the ways learning-styles proponents claim. Given the lack of scientific evidence, the authors argue that the currently widespread use of learning-style tests and teaching tools is a wasteful use of limited educational resources.