

Learning Styles Are Appealing But Misleading

by Louise Rasmussen - March 20, 2013

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Learning styles has become a popular term to use when we talk about the idea that people have different ways of learning.

The concept of learning styles has a lot of personal and political appeal. It comes in handy when we want to explain why we didn't learn much from a class. *"The teacher just talked and talked the whole time. I'm more of a visual learner. I need more pictures."*

It can help us make the case that the instruction formats and learning environments we're most comfortable with are more effective for us.

"I'm an aural (auditory) learner, so I need to listen to music when I study."

Finally, it appeals to administrators and policy makers. This is because the learning styles idea supports the argument that it's possible to develop instruction that is optimally effective for the majority of students. Teachers just need to try harder.

But, buyer (and learner) beware.

A recent review of research in this area suggests that in spite of its personal and political appeal, not only is the concept of learning styles not helpful, it can lead you astray when you're trying to gain skills and knowledge.

So, how did the idea of learning styles come about in the first place?

It came about because we all want the answer to the million dollar question...

Why do some people learn better?

We all wonder, at some point in our lives, why some people seem to get more out of learning opportunities than others; be it when we're in Middle School, High School, Hairdressing School, or the Army. Often we conclude that 'they're just smarter'—or at least smarter about the particular topic of instruction.

Some scientists have wondered, though, if the [notions of intelligence](#), or aptitude, or talent really tell the whole story.

Maybe there's something else that can explain why some get more from some instruction than others.

Perhaps it's the [quality of the study skills](#) students use.

Or maybe, they thought, it's like we're all kind of like radios—tuned to different channels. And, if instruction isn't broadcasting on our frequency—then... Well then how could we possibly hear it?

In other words, we each have a 'learning style' and instruction is most effective if it meshes with that style.

Notice that in this learning styles way of thinking, the burden of responsibility is placed on the instruction, not the learner. This makes the learning styles idea especially appealing if you're the recipient of the instruction. And, probably less appealing if you're a teacher with 32 radios in your classroom tuned to 15 different channels.

But I digress. What you really want know is...

Do learning styles exist and do they matter?

Harold Pashler from the University of California, San Diego and his colleagues Mark McDaniel, Doug Rohrer, and Robert Bjork scoured the research literature in search of evidence that learning styles exist and matter. That is, is it true that instruction that meshes with learners' learning styles lead to better learning outcomes? They published [their article](#) describing what they discovered about Learning Styles in the journal *Psychological Science* in the Public Interest.

First, Pashler and colleagues came up with criteria that research studies had to meet in order to provide credible evidence. They had to:

- Divide students into groups based on their learning styles and randomly assign students from each group to receive one of multiple instructional methods.
- Make all students take the same final test to assess their learning outcomes.
- Show that *the instructional method that was most effective for students with one learning style was not the most effective method for students with a different learning style.*

The researchers found consistent evidence across the studies that both children and adults have preferences about how they would like to have information presented to them. This is hardly surprising. But, it suggests an important distinction to keep in mind—there's a difference between what you want and what actually works better.

Sellers of tests to assess learning styles, or instruction tailored to your or your child's learning style will be careful to describe learning styles as 'preferences' rather than dispositions. Instead of saying that people HAVE different learning styles—they will say that people PREFER different learning styles. Pashler did confirm this as true. Thus, they stay on the respectable side of the line between truth and fiction.

Pashler also found many studies confirming that people have different thinking styles and are more skilled at processing certain kinds of information than others. For example, you might be better at extracting information from pictures than your friend Joe; but Joe is better at extracting information from text than you are.

But, as for the central question: Do students learn better from instructional methods that mesh with their learning styles?

Pashler and his colleagues found no studies with results that support this claim that also met the credibility criteria above. In fact, many of the studies that used a scientifically sound method showed no effect of matching instructional methods to learning styles. Other research shows that alternative methods, like [study skills training](#), is indeed effective.

This means that there is no scientific evidence to suggest that people learn better with instruction that's tailored to their preferences and thinking styles.

Earlier I suggested that not only is the concept of learning styles not helpful, it can lead you on the wrong path. But, if learning outcomes aren't any better or any worse when instruction is matched with your learning style, then what's the harm?

Why learning styles can be misleading

In some cases, adopting certain beliefs about ourselves and our abilities, such as [beliefs about intelligence](#), can help us improve our skills and knowledge. In others, our beliefs may instead lead us astray.

The belief that instruction should match our learning style is misleading because it can give us the illusion that we've made a clever move. If we've expended the energy taking a learning style assessment and found instruction that speaks to our presumed learning styles, we may believe that we've done the best we can do. And, this may prevent us from looking for and adopting strategies that could actually make a difference.

Pashler argues that we'd do better if we forget about learning styles and instead tune into the learning strategies that have been shown to work for people in general. So, stop looking for teachers or classes that are 'tuned to your frequency.' Instead, start beefing up your [learning strategies](#).

Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2009). Learning Styles: Concepts and Evidence *Psychological Science in the Public Interest*, 9 (3), 105-119 DOI: [10.1111/j.1539-6053.2009.01038.x](https://doi.org/10.1111/j.1539-6053.2009.01038.x)

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