

New review says the ineffective 'learning styles' theory persists in education

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New research by Swansea University is calling for a more evidence-based approach to teacher-training. Credit: Pexels

A new review by Swansea University reveals there is widespread belief, around the world, in a teaching method that is not only ineffective but may actually be harmful to learners.

For decades educators have been advised to match their teaching to the supposed 'learning styles' of students. There are more than 70 different classification systems, but the most well-known (VARK) sees individuals being categorized as visual, auditory, read-write or kinesthetic learners.

However, a new paper by Professor Phil Newton, of Swansea University Medical School, highlights that this ineffective approach is still believed by teachers and calls for a more evidence-based approach to teacher-training.

He explained that various reviews, carried out since the mid-2000s, have concluded there is no evidence to support the idea that matching instructional methods to the supposed learning [style](#) of a student does improve learning.

Professor Newton said: "This apparent widespread belief in an ineffective [teaching method](#) that is also potentially harmful has caused concern among the education community."

His review, carried out with Swansea University student Atharva Salvi, found a substantial majority of educators, almost 90 per cent, from samples all over the world in all types of education, reported that they believe in the efficacy of learning styles

But the study points out that a learner could be a risk of being pigeonholed and consequently lose their motivation as a result.

He said: "For example, a student categorized as an auditory learner may end up thinking there is no point in pursuing studies in visual subjects

such as art, or written subjects like journalism and then be demotivated during those classes.."

An additional concern is the creation of unwarranted and unrealistic expectations among educators.

Professor Newton said: "If students do not achieve the academic grades they expect, or do not enjoy their learning; if students are not taught in a way that matches their supposed learning style, then they may attribute these [negative experiences](#) to a lack of matching and be further demotivated for future study."

He added: "Spending time trying to match a [student](#) to a learning style could be a waste of valuable time and resources."

The paper points out that there are many other teaching methods which demonstrably promote learning and are simple and easy to learn, such as use of practice tests, or the spacing of instruction, and it would be better to focus on promoting them instead.

In the paper, published in journal *Frontiers in Education* the researchers detail how they conducted a review of relevant studies to see if the data does suggest there is confusion.

They found 89.1 per cent of 15,045 educators believed that individuals learn better when they receive information in their preferred learning style.

He said: "Perhaps the most concerning finding is that there is no evidence that this belief is decreasing."

Professor Newton suggests history is repeating itself: "If educators are themselves screened using learning styles instruments as students then it

seems reasonable that they would then enter teacher-training with a view that the use of learning styles is a good thing, and so the cycle of belief would be self-perpetuating."

The study concludes that belief in matching instruction to learning styles is remains high.

He said: "There is no sign that this is declining, despite many years of work, in the academic literature and popular press, highlighting this lack of evidence.

However, he also cautioned against over-reaction to the data, much of which was derived from studies where it may not be clear that educators were asked about specific learning styles instruments, rather than individual preferences for learning or other interpretations of the theory.

"To understand this fully, future work should focus on the objective behavior of educators. How many of us actually match instruction to the individual learning styles of students, and what are the consequences when we do? Should we instead focus on promoting effective approaches rather than debunking myths?"

More information: Philip M. Newton et al, How Common Is Belief in the Learning Styles Neuromyth, and Does It Matter? A Pragmatic Systematic Review, *Frontiers in Education* (2020). [DOI: 10.3389/feduc.2020.602451](https://doi.org/10.3389/feduc.2020.602451)

Provided by Swansea University

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