Cost	Evidence strength	Impact (months)	Effect size
£ £ £ £ £		*0*	*0.00*

What is it?

The idea underpinning learning styles is that individuals all have a particular approach to or style of learning. The theory is that learning will therefore be more effective or more efficient if pupils are taught using the specific style or approach that has been identified as their learning style. For example, pupils categorised as having a 'listening' learning style, could be taught more through storytelling and discussion and less through traditional written exercises.

Key Findings

1. The number of high-quality studies of learning styles are extremely low. As a result no impact is displayed. Schools implementing approaches with very limited evidence should carefully consider how they would monitor impact and mitigate against the risk of negative effects.

2. Learners are very unlikely to have a single learning style, so restricting pupils to activities matched to their reported preferences may damage their progress. This is especially true for younger learners in primary schools whose preferences and approaches to learning are still very flexible.

3. Labelling students as particular kinds of learners is likely to undermine their belief that they can succeed through effort and to provide an excuse for failure.

4. It appears to be more promising to focus on other aspects of motivation and self-regulation to engage pupils in learning activities.

5. Teachers should aim to support pupils to take responsibility for success in their learning and develop their own successful strategies and approaches.

How effective is the approach?

The lack of studies identified that tested learning styles approaches rigorously, as found through a systematic search, mean that there is not enough security to communicate a month's progress figure.

There is very limited wider evidence for any consistent set of learning 'styles' that can be used reliably to identify genuine differences in the learning needs of young people. Evidence also suggests that it is unhelpful to assign learners to groups or categories based on a supposed learning style. It is particularly important not to label primary age pupils, or for them to be led to believe that any lack of success is due to their learning styles.

Individual learning preferences do change in different situations and over time, and there is some evidence that cognitive preference and task type may be connected (for example, visualisation is particularly valuable for some areas of mathematics). However, studies where teaching activities are targeted towards particular learners based on an identified learning 'style' have not convincingly shown any major benefit, particularly for low attaining pupils. Impacts recorded are generally low or negative.

While there is no evidence that learners have a distinct "learning style" (such as being a "visual learner", research in the Arab world showed that differentiated instruction techniques can lead to positive gains on the teaching and learning process. Studies in Saudi Arabia, Morocco, Lebanon, and Iraq reported that whenever teachers adopt differentiated instructional methods using various resources succeed on meeting learners' needs and help them achieve the learning objectives.

However, researchers have highlighted some potential barriers for teachers' implementation of differentiated instruction in their classroom. Examples include lack of ICT resources, limited autonomy and decision making allowed for teachers, and rigidity of the curriculum.

To date, there is little reliable empirical evidence to support the concept of learning styles around the globe and particularly in the Arab world.

Behind the average

Closing the disadvantage gap

Studies where teaching activities are targeted towards particular learners based on an identified learning 'style' have not indicated an impact on pupil attainment and therefore, grouping pupils on

the basis of learning styles is unlikely to be a successful strategy for closing the disadvantage attainment gap.

Adaptive teaching approaches are unlikely to be valuable if teachers set lower expectations for particular pupils. It is important not to label younger learners or to attribute poor performance to their 'learning style' as this may negatively impact pupil motivation and self-efficacy. This poses a particular risk for pupils from disadvantaged backgrounds who are, on average, more likely to have lower prior attainment.

How could you implement in your setting?

There is very limited evidence for any consistent set of learning 'styles' that can be used reliably to identify the learning needs of young people. Instead, teachers hoping to target learning effective might consider other teaching and learning practices including:

- Understanding pupils' differences, including their different levels of prior knowledge and barriers to learning.
- Ensuring responsive teaching – including modelling, explanations, and scaffolding - and high-quality feedback for all pupils.
- Providing targeted academic support where learning needs are identified.
- Supporting pupils to plan, monitor and evaluate their own learning.
- When grouping pupils, carefully monitoring the impact on pupil progress, motivation, and behaviour.

As a classroom-based approach, activities are typically delivered by teachers or TAs.

What does it cost?

The costs are estimated as very low, usually involving preparation of a greater range and variety of teaching and learning materials. Some of the available tests of learning styles require purchase and it is important to be aware of the lack of validity and reliability of these tests given the lack of evidence for the existence of learning styles noted above.

When introducing new approaches, schools should consider implementation. For more information see **Putting Evidence to Work – A School's Guide to Implementation.**

As yet there is no information about local costs.

How secure is the evidence?

The lack of identified studies that tested learning styles approaches rigorously mean that the security of the evidence around Learning Styles is rated as extremely low. For topics with extremely low evidence, a month's progress figure is not displayed. No studies were identified that met the pre-specified inclusion criteria.