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## Synthesis

# Learning styles<sup>i</sup>

Low impact for very low cost, based on limited evidence

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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.

## How effective is it?

There is very limited evidence for any consistent set of learning 'styles' that can be used reliably to identify genuine differences in the learning needs of young people, and evidence suggests that it is unhelpful to assign learners to groups or categories on the basis of a supposed learning style.

»»» The lack of impact of learning styles has been documented at all stages of education.

Overall the evidence shows an average impact of two months' progress for learning style interventions. However, given the limited evidence for the existence of 'learning styles', it is reasonable to conclude that these gains may be the result of pupils taking responsibility for their own learning (see Metacognition) or from teachers using a wider range of activities to teach the same content, rather than the result of different learning styles.

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.

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The lack of impact of learning styles has been documented at all stages of education but it is particularly important not to label primary age pupils or for them to believe that their lack of success is due to their learning style.

## Latin American evidence<sup>ii</sup>

Most of the research in Latin America about learning styles is descriptive and correlational. Studies tend to investigate what type of learning style predominates among students, and the ways in which learning styles are related to socioeconomic backgrounds and other student characteristics such as the ability to process information.

The evidence related to learning outcomes does not show a clear association between different learning styles and performance. It is also found that the proposed categorization of learning styles is difficult to verify with empirical research. A study carried out in Mexico investigated whether there was a predominance of certain styles among students with better academic performance in language and mathematics, and concluded there was not. Another study conducted in Colombia found that the relationship between learning styles and academic performance was weak and also it tended to differ across different socioeconomic groups.

Based on the existing research in Latin America, it is difficult to establish that learning styles are associated with academic performance.

## How secure is the evidence?

Overall the picture is consistent though rigorous research is limited. The evidence for the lack of impact (and in some cases detrimental effect) of using learning styles approaches has been shown in a number of studies. The lack of validity and reliability of learning styles tests has also been the focus of a number of reviews.

## What are the costs?

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

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## What should I consider?

Before you implement this strategy in your learning environment, consider the following:

1. 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.
2. 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.
3. It appears to be more promising to focus on other aspects of motivation to engage pupils in learning activities.
4. It certainly appears to be beneficial to have different representations of ideas when developing understanding, but this does not demonstrate that individual learners have a learning style.
5. How are you encouraging pupils to take responsibility for identifying how they can succeed in their learning and develop their own successful strategies and approaches?

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