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## Synthesis

# Outdoor adventure learning<sup>i</sup>

Moderate impact for moderate cost, based on moderate evidence

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Outdoor adventure learning typically involves outdoor experiences, such as climbing or mountaineering; survival, ropes or assault courses; or outdoor sports, such as orienteering, sailing and canoeing. These can be organised as intensive residential courses or shorter courses run in schools or local outdoor centres.

Adventure education usually involves collaborative learning experiences with a high level of physical (and often emotional) challenge. Practical problem-solving, explicit reflection and discussion of thinking and emotion (see also Metacognition and self-regulation) may also be involved.

Adventure learning interventions typically do not include a formal academic component, so this summary does not include forest schools or field trips.

## How effective is it?

Overall, studies of adventure learning interventions consistently show positive benefits on academic learning. On average, pupils who participate in adventure learning interventions make approximately four additional months' progress. There is also evidence of an impact on non-cognitive outcomes such as self-confidence.



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The evidence suggests that the impact is greater for more vulnerable students and older learners (teenagers), longer courses (more than a week), and those in a 'wilderness' setting, though other types of intervention still show some positive impacts.

Understanding why adventure learning interventions appear to improve academic outcomes is not straightforward. One assumption might be that non-cognitive skills such as perseverance and resilience are developed through adventure learning and that these skills have a knock-on impact on

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academic outcomes. If adventure learning interventions are effective because of their impact on non-cognitive skills, then explicitly encouraging students to actively apply these skills in the classroom is likely to increase effectiveness. However, it should be noted that the wider evidence base on the relationship between these non-cognitive skills and pupil achievement is underdeveloped.

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

There is no evidence from Latin America on the use of outdoor adventure learning to improve outcomes. Nevertheless, a few studies have analysed the related question of learning outside the classroom in the region. They suggest that initiatives that use natural environments (lakes, forests, mountains, etc.) in the teaching processes might improve the learning of science-related contents. For example, according to a study conducted in Chile about the attitude of primary and secondary students towards the teaching and learning of science, the subject seems to be perceived as more appealing and interesting when the ecosystem and the environment outside of the school are incorporated into teaching and learning. The use of natural environments might therefore be one way to improve learning outcomes. Despite this partial evidence, more research needs to be done to have conclusive results of the impact of this intervention on learning outcomes in Latin America.

## How secure is the evidence?

The evidence on adventure learning interventions is moderately secure. The range of effect sizes is fairly wide but all the studies included in the meta-analysis show a positive effect.

## What are the costs?

The costs vary depending on the type of activity that is carried out. A sailing adventure or the mountain using ropes will have different financial needs. In general, the costs are estimated as moderate.

## What should I consider?

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

1. A wide range of adventure activities are linked with increased academic achievement.

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2. Experiences that last over a week tend to have greater impact and tend to produce effects of a longer duration.
  3. It is important to work with well-trained and well-qualified staff as adventure experiences can pose very different physical and emotional risks to those experienced in schools.
  4. Outdoor adventure experiences could have positive impacts on self-confidence, self-efficacy and motivation. How will you maximise the impact on learning by ensuring pupils apply these skills when they return to the classroom?

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