REDUCING CLASS SIZE

COST	EVIDENCE	IMPACT	EFFECT
		+2	0.16

Low impact for very high cost based on very limited evidence.

WHAT IS IT?

Reducing class size is an approach to managing the ratio between pupils and teachers, as it is suggested that the range of approaches a teacher can employ and the amount of attention each student will receive will increase as the number of pupils per teacher becomes smaller.

KEY FINDINGS

1. Reducing class size has a small positive impacts of +2 month, on average. The majority of studies examine reductions of 10 pupils. Small reductions in class size (for example, from 30 to 25 pupils) are unlikely to be cost-effective relative to other strategies.

2. There is some evidence for additional benefits of smaller class sizes with younger children, so smaller class sizes may be a more effective approach during the early stages of primary school.

3. Smaller classes only impact upon learning if the reduced numbers allow teachers to teach differently – for example, having higher quality interactions with pupils or minimising disruption.

4. The gains from smaller class sizes are likely to come from the increased flexibility for organising learners and the quality and quantity of feedback the pupils receive (see Feedback).

5. As an alternative to reducing class sizes, it may be possible to change the deployment of staff (both teachers and teaching assistants) so that teachers can work more intensively with smaller groups (see Small group tuition).

HOW EFFECTIVE IS THE APPROACH?

The average impact for reducing class size is around 2 months additional progress over the course of an academic year. The evidence in this area of very limited, so should be treated with caution.

The key issue appears to be whether the reduction is large enough to permit the teacher to change their teaching approach when working with a smaller class and whether, as a result, the pupils change their learning behaviours. If no change occurs then, perhaps unsurprisingly, learning is unlikely to improve. When a change in teaching approach does accompany a class size reduction (which appears hard to achieve until classes are smaller than about 20) then benefits on attainment can be identified, in addition to improvements on behaviour and attitudes.

BEHIND THE AVERAGE

Effects are similar for both primary and secondary schools.

Impact on reading is higher (+2 months) than mathematics (+1 month).

Most studies examine reductions of 8-10 pupils. The impact of studies that examine reducing class sizes by 5 pupils is smaller, on average.

CLOSING THE DISADVANTAGE GAP

International research evidence suggests that reducing class size can have positive impacts on pupil outcomes when implemented with socioeconomically disadvantaged pupil populations. Some studies also have also found that smaller class sizes in primary schools can have a greater positive impact on disadvantaged pupils than their peers.

In the UK, there is some indicative evidence to suggest that reception and Key Stage 1 pupils with lower prior attainment and from lower socioeconomic backgrounds may benefit from small classes, although the class size threshold at which this impact is identifiable varies between literacy and maths, and potentially also geographical area.

HOW COULD YOU IMPLEMENT IN YOUR SETTING?

The evidence suggests that significant effects of reducing class size are not seen until the number of pupils has decreased substantial (to fewer than 20 or even 15 pupils). Crucially, a reduction in class size is only likely to be effective if it permits teachers to change their teaching approach to the extent that this changes the learning behaviours of pupils. High quality implementation of reducing class size might consider:

- Additional opportunities to provide feedback on pupils
- Time for high quality interaction between pupils and teachers e.g. modelling approaches closely with pupils.

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

WHAT DOES IT COST?

The costs associated with reducing class sizes are very high, as additional staff would be required to reduce class sizes.

In 2020/21, the average salary for a primary school teacher in England was £36,900. The average salary for a secondary school teacher was £39,900.

This estimate does not consider the potential cost of sourcing facilities to host the additional lessons created through reducing class size. Space to host lessons is therefore a pre-requisite to reducing class size, without which the costs are likely to be much higher.

HOW SECURE IS THE EVIDENCE?

The security of the evidence around reducing class size is rated as very limited. 45 studies were identified. Overall, the topic lost three additional padlocks because:

- A large percentage of the studies are not randomised controlled trials. While other study designs still give important information about effectiveness of approaches, there is a risk that results are influenced by unknown factors that are not part of the intervention.
- A large percentage of the studies were not independently evaluated. Evaluations conducted by organisations connected with the approach – for example, commercial providers, typically have larger impacts, which may influence the overall impact of the strand.
- There is a large amount of unexplained variation between the results included in

the topic. All reviews contain some variation in results, which is why it is important to look behind the average. Unexplained variation (or heterogeneity) reduces our certainty in the results in ways that we have been unable to test by looking at how context, methodology or approach is influencing impact.

As with any evidence review, the Toolkit summarises the average impact of approaches when researched in academic studies. It is important to consider your context and apply your professional judgement when implementing an approach in your setting.

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