



Overall the evidence does not show particularly large or clear effects, until class size is reduced substantially

Cost
£££££

Evidence strength

Impact (months)
+3

Effect size
0.19

What is it?

As the size of a class or teaching group gets smaller it is suggested that the range of approaches a teacher can employ and the amount of attention each student will receive will increase, improving outcomes for pupils.

How effective is it?

Reducing class size appears to result in around three months' additional progress for pupils, on average. Intuitively, it seems obvious that reducing the number of pupils in a class will improve the quality of teaching and learning, for example by increasing the amount of high quality feedback or one to one attention learners receive. However, overall, the evidence does not show particularly large or clear effects until class size is reduced substantially to fewer than 20 or even 15 pupils. It appears to be very hard to achieve improvements from modest reductions in class size to numbers above 20, for example from 30 to 25.

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. In some studies, these benefits persist for a number of years (from early primary school through to at least the end of primary school).

There is some evidence that reducing class sizes is more likely to be effective when accompanied by professional development for teachers focusing on teaching skills and approaches. Some

evidence suggests slightly larger effects are documented for lower achievers and, for very young pupils, those with lower socio-economic status.

Smaller class sizes may also provide more opportunities for teachers to develop new skills and approaches.

Evidence of reducing class size in the Arab world showed that student numbers inside the classroom can change teachers' experiences and pedagogies and that smaller class sizes were related to higher student performance. Studies in Oman, Morocco, Egypt, Algeria and Saudi Arabia reported that whenever class size increase, teachers ability to deliver student-centered activities decrease. Class size was found to be particularly important when teachers intend to use the Web 2.0 applications, inquiry-based learning in science, and nurturing students critical skills.

Researchers have also highlighted the impact of class size on students interaction, communication, and engagement inside the class. Additionally, having large classroom does not allow the teacher to pay attention to all students, individualize the instruction and assess their performance. It can also cause discipline problems that distract the attention of both students and teacher and limit students participation.

More research about reducing class size is needed in this region specifically to examine its relationship with teachers' and students' performance as well as understanding teachers experiences and feelings and how are these impacting their teaching quality. Further research could also look at the factors that could support teachers' and students in large classrooms.

How secure is the evidence?

Overall, there is a relatively consistent finding that smaller classes are associated with slightly higher attainment when other factors are controlled for and when class sizes have been deliberately reduced in experimental evaluations.

One difficulty in interpreting the evidence about class size is that many countries or schools already teach lower-attaining pupils in smaller groups.

What are the costs?

Reducing class sizes to a level where a significant benefit is likely is expensive. The evidence suggests that typical classes would need to be reduced to between 15 and 20 pupils. The additional teacher costs of splitting a class of 30 pupils into two classes of 15 pupils would be around 1,150.0 GBP (1,479.3 USD, 1,048.9 JOD) per pupil. This does not take into account the cost of additional classrooms. Overall, costs are estimated as high.

Costs originally calculated in GBP; USD and JOD calculated via oanda.com on 22/09/20.

As yet there is no information about local costs.

What should I consider?

Small reductions in class size (for example, from 30 to 25 pupils) are unlikely to be cost-effective relative to other strategies.

Reducing class sizes for younger children may provide longer term benefits.

Smaller classes only impact upon learning if the reduced numbers allow teachers to teach differently. Have you considered how you will adjust your teaching strategies and what professional development will be required?

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](#)). Have you considered how you will organise learning in smaller classes and how you will improve feedback to your pupils?

As an alternative to reducing class sizes, have you considered changing the way you deploy staff (both teachers and teaching assistants) so that teachers can work more intensively with smaller groups (see [Small group tuition](#))?

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