# What is the effect of block scheduling on academic achievement?
## A systematic review

### What do we want to know?

Block scheduling is one approach to school scheduling. It typically means that students have fewer classes (4-5) per day, for a longer period of time (70-90 minutes). There are three main types of block schedule investigated in this review, comprising the following:

- **4 x 4**: four blocks of 80-90 minute classes in one day, with students taking four subjects in one term
- **A/B**: classes of 70-90 minutes each for three/four different subjects on every alternating day
- **hybrid**: five classes per day, between 55 and 90 minutes in length

The in-depth review asks the following question:

*Does block scheduling result in higher levels of student attainment than traditional scheduling?*

Studies used different measures of academic achievement across different academic subjects. These included test results in Mathematics, English, Science, exam scores or average grade scores across different subjects.

Sub-questions were also asked in the in-depth review and these investigated whether the effect of block scheduling varied by type of block schedule and type of subject(s) taught.

### Who wants to know and why?

Those who want to know about block scheduling include policy-makers and schools interested in whether teaching subjects in extended 'blocks' of time will improve achievement at Key Stages 3 and 4 in the National Curriculum.

### What did we find?

Only 12 of the 14 studies included in the in-depth review provided the data necessary for statistical meta-analysis to assess the effectiveness of different types of block scheduling on academic achievement. The 12 studies were considered to be of medium weight of evidence and two were considered to be of low weight of evidence, overall, for this review.

Where we were able to combine data to produce summary effect sizes, we found that 4 x 4 block scheduling resulted in higher cross subject achievement than traditional schedules. However, the outcome average cross-subject achievement could conceal worsening performance in some subjects and better performance in others.

For single subject outcomes:

- In Science, A/B block scheduling resulted in higher results than traditional schedules.
- In Mathematics and English, the evidence was unclear, with studies showing both better and worse results for block scheduling compared with traditional scheduling.

### What are the implications?

There is not conclusive evidence in this review to support the introduction of policy guidance on the use of block scheduling in secondary schools. Findings do not indicate that participating in block schedules would produce negative outcomes for pupils across subjects, but the findings on positive effects are not strong enough to recommend their implementation.

### How did we get these results?

We searched six key educational bibliographic databases and seven key websites. We applied inclusion and exclusion criteria to build up a 'map' of relevant studies. Additional criteria were applied to the studies in the map, which produced the 12 studies that were synthesised to answer the in-depth review questions.

*The* **Evidence for Policy and Practice Information and Co-ordinating Centre** *(EPPI-Centre) is part of the Social Science Research Unit at the Institute of Education, University of London*

SUMMARY

# Where to find further information

**For more information about this review and the EPPI-Centre's systematic review programmes please contact:**


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The results of this systematic review are available in four formats:

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|---|---|
| **SUMMARY** | **Explains the purpose of the review and the main messages from the research evidence** |
| **REPORT** | Describes the background and the findings of the review(s) but without full technical details of the methods used |
| **TECHNICAL REPORT** | Includes the background, main findings, and full technical details of the review |
| **DATABASES** | Access to codings describing each research study included in the review |

These can be downloaded or accessed at
http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2476


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**REPORT**

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