Education Endowment Foundation

SUMMA Innovación en Educación

Synthesis

Block scheduling[i]

Very low or no impact for very low cost, based on limited evidence

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Block scheduling is an approach to school timetabling in secondary schools. It typically means that pupils have fewer classes (4-5) per day, for a longer period of time (70-90 minutes). The three main types of block schedules found in the research are:

4x4 block scheduling: 4 blocks of extended (80–90 minute) classes each day, covering the same 4 subjects each day. Students take 4 subjects over 1 term, and 4 different subjects in the following term.A/B block scheduling: 3 or 4 blocks of extended (70–90 minute) classes each day, covering the same 3 or 4 subjects on alternating days. Students take 6 or 8 subjects each term.Hybrid: a hybrid of traditional models and 3/4-class-per-day approaches. Students have 5 classes per day, of between 60 and 90 minutes.

How effective is it?

There is no consistent pattern in the evidence. A 2010 systematic review concluded that the 4x4 pattern seemed to produce higher overall achievement than traditional schedules, though this may mask differences between subjects. More detailed analysis suggests that in science the A/B block scheduling approach resulted in higher results than traditional schedules (two to five months of additional progress). In mathematics and English the evidence was unclear with studies showing both better and worse results for any type of block scheduling compared with traditional scheduling.

» The evidence suggests that how teachers use the time they are allocated is more important than the length of lesson.

The evidence suggests that how teachers use the time they are allocated is more important than the length of lesson or the schedule of lessons, and hence that the introduction of block scheduling is unlikely to raise attainment by itself. It may also be that when different timetable patterns are introduced, the changes will only be beneficial if teachers alter the way they teach to get the best from the time allocation. Teachers and students often perceive that timetabling changes are beneficial,

especially when it appears to increase one to one interaction. However, these perceptions are not clearly linked with improved learning outcomes.

Latin American Evidence[ii]

Very limited research has been conducted in Latin America on block scheduling. A study conducted in Colombia proposes the implementation of an optimal academic timetable to solve the problem of scheduling the school day. This model was built by taking into account not only the appropriate organization of rooms and teachers, but also the cognitive rhythms (or preferences) of the students as the most relevant factor. The results of this experimental evaluation show a significant reduction in academic absent-mindedness in the groups where the intervention based on cognitive rhythms was implemented. However, Latin American evidence is very scarce in terms of quantifying the impact of scheduling on academic performance. More local research is needed to better understand the effect on learning of block scheduling.

How secure is the evidence?

There are two recent meta-analyses which have looked at the evidence of the impact of timetabling and scheduling changes on students' learning but these rely on a small number of studies which have limited security.

Timetabling mainly affects secondary schools, though the time spent on different areas of the curriculum is also relevant at primary level. The research has mainly looked at impact on mathematics, English and science.

What are the costs?

The costs of making alterations to the timetable are mainly in terms of organisational effort and time and involve minimal financial outlay.

What should I consider?

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

1. Timetabling changes alone are not sufficient to improve learning.
2. Teachers need to alter the way that they teach, and should plan and organise different kinds of learning activities to obtain benefits.
3. Have timetabling changes been matched to curriculum goals and teaching and learning objectives (such as longer lessons for science experiments)?
4. Have you considered how longer lessons may provide opportunities for other promising approaches, such as improving the amount of feedback that students get from the teacher or from each other?

SUMMA (2019) Latin American Evidence, Block scheduling.