

ASK A REL RESPONSE

Research on School Schedules

School staff often request research on the most effective types of schedules to maximize instructional time and to ensure that there is enough time for teachers to collaborate. Two of the most commonly used schedules are block scheduling in which students attend fewer but longer classes each day, or six- or seven- period days in which each class meets every day for shorter periods.

Below, we share a sampling of the publicly accessible resources on this topic, found in a search of research databases and websites of federally funded organizations and other research and policy centers. The databases include Education Administration Abstracts, Education Resources Information Center (ERIC), Education Research Complete, and Google Scholar.

This customized search is provided through our Ask A REL program and is available free of charge. Ask A REL responses are tailored to meet the needs of each individual request, and include copies of full-text articles from peer-reviewed journals. If you would like additional research on scheduling options or on other topics, please contact Jennifer Klump at relnw@educationnorthwest.org for personalized assistance.

Dickson, K., Bird, K., Newmann, M., & Kalra, N. (2010). *What is the effect of block scheduling on academic achievement? A systematic review*. Retrieved from University of London, Institute of Education, Social Science Unit, EPPI–Centre website: <https://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2476>

This review of 12 studies does not find conclusive evidence to support the introduction of block scheduling in secondary schools in which it does not already exist. While the authors found no evidence that participating in block schedules produces negative outcomes for students across subject areas, the positive effects are not strong enough to recommend implementation.

Flynn, L., Lawrenz, F., & Schultz, M. (2005). *Block scheduling and mathematics: Enhancing standards-based instruction*. *NASSP Bulletin*, 89(642). 14–23. Retrieved from <http://bul.sagepub.com/content/89/642/14.full.pdf+html>

This study investigates differences in student engagement in a standards-based math curriculum based on their participation in a block schedule or a traditional schedule. Survey data were gathered from 156 middle school mathematics teachers to access the use of standards-

based curriculum and instruction practices in their classrooms. Results indicate there are few differences in curriculum and instruction based on the type of school schedule.

Mattox, K., Hancock, D. R., & Queen, J. A. (2005). The effect of block scheduling on middle school students' mathematics achievement. *NASSP Bulletin*, 89(642), 3–13. Retrieved from <https://www.nassp.org/portals/0/content/50245.pdf>

This study is one of the few to explore the impact of block scheduling at the middle school level. Many middle school students experience a decline in achievement, particularly during the first year of transition from elementary school. Block scheduling, which allows students to take fewer classes for longer periods of time, is often viewed as a possible strategy for increasing student engagement and easing this transition. This study reveals significant increases in the math achievement scores of sixth-grade students' enrolled in five middle schools that transitioned from traditional to block schedules. The study discusses the characteristics of block scheduling that may have accounted for these outcomes and offers recommendations for future research.

Prewett, S., Mellard, D., & Lieske-Lupo, J. (2011). *Information brief: RTI scheduling process for middle schools*. Retrieved from National Center on Response to Intervention website: http://www.rti4success.org/sites/default/files/0681MS_RTI_Rescheduling_Brief_d2.pdf

Scheduling classes and activities appears to be one of the most perplexing challenges that school staff confront when implementing Response to Intervention (RTI). This seems to be especially true at the middle and high school levels. Having a workable schedule for faculty, staff, and students is essential for making the RTI essential components cohesive and feasible to implement. This brief addresses frequently asked questions about scheduling issues in middle schools. The responses were derived from observations, surveys, and interviews with administrators and staff at 11 middle schools that were implementing RTI.

Smith, J., & Cooper, N. (2011). *Collaborative scheduling: Teams redefining time*. Retrieved from Association for Middle Level Education website: <http://www.amle.org/BrowsebyTopic/WhatsNew/WNDet/TabId/270/ArtMID/888/ArticleID/269/Collaborative-Scheduling-Teams-Redefining-Time.aspx>

This article discusses one middle school's approach to scheduling using block and flexible project time.

Williamson, R. (2009). The schedule as a tool to improve student learning. *Instructional Leader*, 22(3), 1–4. Retrieved from <http://ronwilliamson.com/uploads/ScheduleAsAToolMay09.pdf>

This article provides a review and examples of four types of school schedules: block schedule, alternating schedule, dropped schedule, and rotating schedule. The author explores the

advantages and disadvantages of each, as well as specific implications for the instructional program.

Williamson, R. (2010). *Scheduling: Seven period day* [Research brief]. Retrieved from Oregon Gear Up website: <http://gearup.ous.edu/sites/default/files/Research-Briefs/ResearchBriefSevenPeriodDay.pdf>

In order to maximize instructional time, many school districts are considering the costs and benefits of a seven-period school day. This brief explores the limited research on this topic, as well as the practical issues of implementation, such as the allocation of resources. The author also emphasizes the importance of thoroughly exploring whether such a schedule aligns with school and district goals and priorities and the needs of the community.

Zelkowski, J. (2010). *Secondary mathematics: Four credits, block schedules, continuous enrollment? What maximizes college readiness?* *Mathematics Educator*, 20(1), 8–21. Retrieved from <http://tme.journals.libs.uga.edu/index.php/tme/article/view/216/203>

National Assessment of Educational Progress and National Education Longitudinal Study data indicate that noncontinuous enrollment in secondary mathematics results in lower mathematics achievement and decreases the odds of completing a bachelor's degree. Nationally, schools following 4 x 4 block schedules (90-minute classes that meet daily for only one semester) were found to have mathematics achievement scores two-thirds of one grade level lower than schools using a 50-minute, yearlong mathematics course schedule. Typical college-bound students who do not take mathematics all four years of high school likely diminish their odds of bachelor degree completion by approximately 20 percent.