

Other best practices for interdisciplinary teacher teams include encouraging teachers to purposefully collaborate, building time for collaboration into the school day, facilitating shared decision-making within teams, and asking teachers to form a mission statement for their team.¹⁹

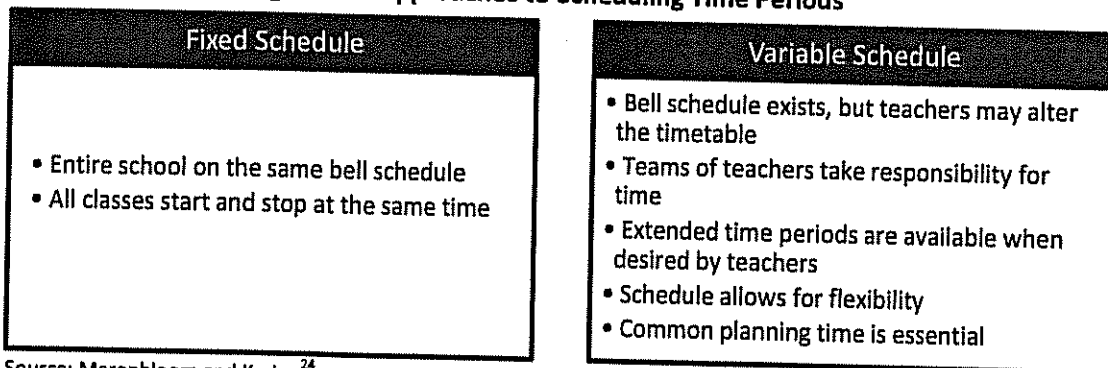
“Interdisciplinary team organization should be implemented in the middle grades of all schools that include young adolescents. All teachers serving on teams should be provided at least one daily common planning period.”

SCHEDULING

A middle school schedule represents the comprehensive organization of the instructional program of the school. It serves to deliver the intended curriculum while becoming the order of the day for teachers and students.²⁰ Currently, one major task of middle schools is to satisfy the challenge of meeting both the necessary structure and flexibility requirements of the Common Core State Standards (CCSS).²¹ To meet the requirements of CCSS, middle schools often seek to provide both 45-minute periods and an 80-90 minute extended time period.²² Most middle schools continue to use 40-50-minute periods, while a much smaller percentage use 60-90-minute periods.²³

There are two approaches to scheduling time periods within the school day: fixed and variable. As Figure 1.3 shows, in the fixed schedule, the entire school is on the same bell schedule. On the variable schedule, teachers are encouraged to alter the timetable to best address students' learning needs.

Figure 1.3: Approaches to Scheduling Time Periods



Source: Merenbloom and Karina²⁴

The variable schedule allows for flexibility in instruction, as well as professional development, for teachers to improve the learning experience of students. These flexibility options include:²⁵

¹⁹ Bagwell, Op. cit.

²⁰ Ibid.

²¹ Merenbloom and Kalina, Op. cit.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

- altering the sequence of classes
- using large group instruction as appropriate
- establishing 45-, 60-, or 90-minute periods
- grouping and regrouping students for various instructional purposes
- coordinating interdisciplinary activities
- providing project time for ongoing assessment of student work on long term projects

AMLE indicates that flexible scheduling is closely related to the successful implementation of interdisciplinary team teaching and common planning time for teachers.²⁵ Accordingly, AMLE recommends that “all schools with middle level students should adopt some form of flexible scheduling. The highest priorities of the schedule should be providing blocks of

“All schools with middle level students should adopt some form of flexible scheduling. The highest priorities of the schedule should be providing blocks of instructional time and daily common planning times for teams of core teachers.”

instructional time and daily common planning times for teams of core teachers.”²⁷ This recommendation is based on research which demonstrates that flexible schedules “provide longer instructional times, avoid fragmented instruction, allow for more creative and flexible use of time by teachers, provide varying learning times for students, and increase student engagement and achievement.”²⁸

FLEXIBLE SCHEDULING OPTIONS

A traditional school schedule consists of six to eight periods each day that typically last for an hour or less.²⁹ The traditional school schedule has been the subject of considerable scrutiny over the past several decades.³⁰ Critics cite frequent class changes, fragmented instruction due to insufficient class time, and lack of community-building due to fewer quality opportunities to get to know teachers and classmates as key drawbacks of the traditional schedule.³¹ As a result, several alternatives to traditional scheduling have been developed over the years. These alternatives include block scheduling, flexible-modular scheduling, year-round schooling, and four-day school weeks. Each of these options is briefly reviewed later in this section.

²⁵ Bullet points taken verbatim from *Ibid.*

²⁶ McEwin and Greene, *Op. cit.*

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ “Block Schedule.” *The Glossary of Education Reform.* <http://edglossary.org/block-schedule/>

³⁰ Flynn, L., F. Lawrenz, and M.J. Schultz. “Block Scheduling and Mathematics: Enhancing Standards-Based Instruction.” *NASSP Bulletin*, 89:642, 2005. <http://bul.sagepub.com/content/89/642/14.full.pdf>

³¹ Danielson, C. “School Organization.” In *Enhancing Student Achievement*, Association for Supervision and Curriculum Development, 2002. <http://www.ascd.org/publications/books/102109/chapters/School-Organization.aspx>

SPOTLIGHT

McDonogh School, Owings Mills, MD³⁸

- Two 85-minute blocks (one in the morning, the other in the afternoon) and 40-minute flexible project time
- Students divided into two groups: A and B
- Group A attends two separate 40-minute classes of math and foreign language or reading, while Group B attends 85-minute block for combined subjects of English, social studies, and science and then rotate
- Flexible time is for exploration, research, and connected learning experiences
- Flexibility in grouping teachers lets teachers to form small groups of students for specific instruction as needed
- Teachers have complete ownership of minutes and schedule collaboratively

Alternative scheduling options have different advantages and disadvantages. When evaluating different scheduling options, administrators are advised to use criteria including total time per course, cost, student course load, teacher course load, and the percentage of time spent on core courses.³²

BLOCK SCHEDULING

Block scheduling usually contains three or four longer periods of daily instruction compared to the traditional six to eight shorter class periods. There are many types of block schedules, including the 4x4 semester plan, alternate day schedule (A/B days), combination block schedule, 75-75-30 schedule, intensive block, modified block, and parallel block.³³ Figure 1.4 on the next page describes each type of block scheduling.

Research suggests that block schedules are particularly well-matched for middle schools with team teaching models, as block schedules allow more flexibility for teachers to implement interdisciplinary activities and modify individual student schedules based on learning needs.³⁴ Moreover, block scheduling allows teachers to use time-intensive instructional techniques such as collaborative group work and debates.³⁵ These teaching techniques align with many best-practice instructional strategies, facilitating deeper levels of student engagement and learning.³⁶

Critics of block scheduling, however, note increased tiredness, boredom, and less attentiveness among students in longer class periods than in shorter class periods. To address this issue, teachers are advised to vary instructional activities throughout the class period and utilize active learning techniques as much as possible.³⁷

³² Rettig, M.D. "Designing Quality Middle School Master Schedules." School Scheduling Associates. http://www.doe.virginia.gov/instruction/virginia_tiered_system_supports/training/cohort/2013/feb/day_2/middle/middle_school_presentation.pdf

³³ "A Brief Overview of Flexible Scheduling Options." New York City Public Schools. <http://schools.nyc.gov/NR/rdonlyres/9EF23CC9-8520-4C55-BE46-8BFD468F0E28/0/FlexibleSchedulingOptions.pdf>

³⁴ Danielson. Op. cit.

³⁵ Flynn, Lawrenz, and Schultz. Op. cit.

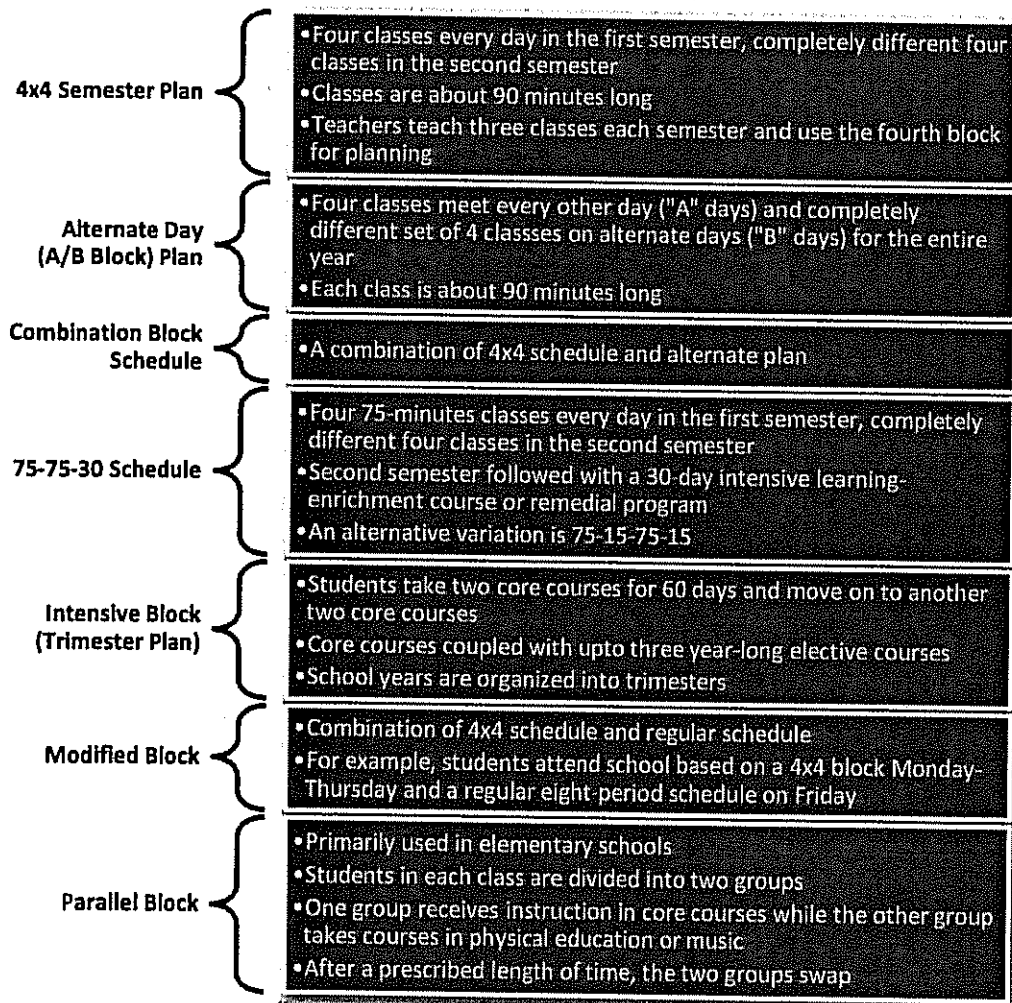
³⁶ Ibid.

³⁷ "Advantages and Disadvantages of the Block Schedule." Public Schools of North Carolina. p. 8. <http://www.ncpublicschools.org/docs/curriculum/worldlanguages/resources/flonblock/06advantage.pdf>

³⁸ "Collaborative Scheduling: Teams Redefining Time." Association for Middle Level Education. <https://www.amle.org/BrowsebyTopic/WhatsNew/WNDet/TabId/270/ArtMID/888/ArticleID/269/Collaborative-Scheduling-Teams-Redefining-Time.aspx>

In support of block scheduling, the 2009 AMLE survey of highly effective middle schools reveals that highly effective schools are more likely to use a flexible block schedule than their randomly selected counterparts (30 percent versus 14 percent).³⁹ In addition, highly effective schools are less likely to use daily uniform periods (72 percent versus 45 percent). Furthermore, a study of nearly 500 middle school students enrolled in English language arts (ELA) and science classes determines that students in both full (4x4) and alternate day (A/B) block scheduling outperform students in traditional scheduling on end-of-course exams.⁴⁰

Figure 1.4: Types of Block Scheduling



Source: New York City Public Schools⁴¹ and the Glossary of Education Reform⁴²

FLEXIBLE-MODULAR SCHEDULING

³⁹ McEwin and Greene, Op. cit.

⁴⁰ Lewis, C.W. and R.B. Cobb. "The Effects of Full and Alternative Day Block Scheduling on Language Arts and Science Achievement In a Junior High School." *Education Policy Analysis Archives*, 11:0, 2003.
<http://epaa.asu.edu/ojs/article/view/269>

⁴¹ New York City Public Schools. Op. cit.

⁴² "Block Schedule." Op. cit.

Flexible-modular (flex-mod) scheduling involves a daily schedule of short learning periods (called “modules” or “mods”) that are typically 20 to 30 minutes long.⁴³ There is not a substantial body of research that focuses on the academic benefits associated with flex-mod scheduling, but the system is noted as a useful tool for individualizing instruction. In addition to group teaching, flex-mod scheduling also provides students with independent learning time built into their schedules, wherein they may study on their own, meet with a teacher one-on-one, or work with classmates in a group setting. There is growing interest among educators regarding the flex-mod system because of its ability to effectively incorporate Response to Intervention (RTI) approaches; the mods provide flexible opportunities for extra instruction that can vary in nature.⁴⁴

YEAR-ROUND SCHOOLING

Year-round schooling divides the school year into four phases which consist of nine-week instructional cycles that span the full calendar year. Rather than a long summer break, students have shorter breaks between each cycle.⁴⁵ Alternatively, some schools have adopted a multi-track schedule, wherein students and teachers are split into three or four groups. While some students and teachers are in school, others are in vacation.⁴⁶ Many schools convert to year-round schooling to avoid teacher and student burnout and to make full use of school facilities. However, schools with multi-track schedules face challenges with teacher collaboration and forming social bonds within the school community.⁴⁷

FOUR-DAY SCHOOL WEEKS

Four-day school weeks require students to attend school for four days each week for extended periods of time each day. The four-day school week is most common in small and rural districts, and the majority of schools that have implemented this type of schedule do not operate on Mondays or Fridays. Some schools do not close entirely on the fifth day and instead use that day for extracurricular activities, tutoring, special programs, or professional development.⁴⁸ A review of the literature suggests that there are three primary shortened school week models: a four-day week in winter months only, a four-day week every other week, and a four-day week throughout the entire school year.⁴⁹

⁴³ “Flex Mod Schedule.” Carl Wunsche Sr. High School. http://schools.springisd.org/docs/97-FlexMod_Newsletter.pdf

⁴⁴ Uhlig, K. “Flexible Scheduling Offers High Schoolers Greater Opportunity.” *How to Learn*, July 2013. <http://www.howtolearn.com/2013/07/flexible-scheduling-offers-high-schoolers-greater-opportunity/>

⁴⁵ New York Public Schools. Op. cit.

⁴⁶ “Districts Weigh Pros and Cons of Year-Round Schools.” *NEA Today*, September 4, 2014. <http://neatoday.org/2014/09/04/districts-weigh-pros-and-cons-of-year-round-schools-2/>

⁴⁷ *Ibid.*

⁴⁸ Gaines, G. “Focus on the School Calendar: The Four-Day School Week.” Southern Regional Education Board, August 2008. p. 1. http://publications.sreb.org/2008/08s06_focus_sch_calendar.pdf

⁴⁹ Donis-Keller, C. and D. Silvernail. “Research Brief: A Review of the Evidence on the Four-Day School Week.” Center for Education Policy, February 2009. <http://www2.umaine.edu/mepri/sites/default/files/CEPARE%20Brief%20on%20the%204-day%20school%20week%202.10.pdf>