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Research Brief

Scheduling: Seven Period Day

Question: What are the advantages and disadvantages of a seven-period day?
What should principals consider when deciding on a school schedule?

In a Nutshell

Driven by stable or declining financial resources many school districts are considering the costs and benefits of a seven-period day. While there is limited evidence that any particular scheduling model has a greater impact on student learning than any other, it is clear that the school schedule is a tool that can significantly impact teacher instruction. It is also clear that the schedule and the allocation of resources (time, personnel) reflect a school community's values and priorities. It is important, therefore, to have a full and thorough discussion about school and district goals and priorities prior to adjusting the schedule.

Summary:

Current economic conditions have forced many school districts to look at the way they organize and deliver their instructional program. One consideration has been the structure of the school day. While there are many scheduling models, research has not found that any one model has a stronger relationship to improved student learning than any other. The most important factor is the presence of a skilled and highly committed teacher. The second most important factor is a principal who is a skilled instructional leader and sets improved teaching and learning as the school's highest priority (Firestone & Riehl, 2005).

This *Research Brief* will discuss the school schedule as a tool for improving the school's instructional program, share several different schedule approaches and then discuss the seven-period day in some detail. It will provide an analysis of advantages and disadvantages of the model and share some factors that must be considered when thinking about a seven-period day.

The Schedule as a Tool

The schedule is a powerful tool to deliver the school's instructional program. It provides teachers and other staff with the time they need to implement the school's program. Six different scheduling models have been identified---traditional fixed, block, alternating day, rotating, dropped and trimester (Williamson, 2009). Each has advantages and disadvantages and each accomplishes different goals.

Most importantly, a schedule is a reflection of the school's values and priorities. For example, a high value may be placed on opportunity for offering students a greater variety of classes. That might lead to adoption of a trimester schedule. Or a greater value may be placed on long instructional blocks with fewer classes each day. That might lead to adoption of a 4X4 block schedule. Or the priority may be on efficient scheduling of teachers and students and leading to adoption of a traditional fixed period schedule.

Quality schedules only emerge when the goals are clear. Thus when considering a change to the schedule it is important to take time to talk about and be clear about what is to be accomplished with the new schedule. Other lessons learned from the work of principals who changed their school's schedule include:

- The most effective schedules are anchored in a shared vision and clear priorities.
- A quality schedule emerges when teachers and administrators work together in establishing priorities and selecting a design.
- Without clear goals the schedule is merely a plan for organizing teachers and students; when guided by goals, the schedule becomes a tool to positively impact teaching and learning. (Williamson & Blackburn, 2009).

Scheduling Approaches

A recent study found that 62% of high schools use a traditional six-period or seven-period schedule (Washington School Research Center, 2006). However, there are several different scheduling models. They include:



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Traditional Fixed Period	Classes generally are of equal length and meet every day for a semester or a year.
Block Schedules	Provide longer instructional blocks that may be used to provide teachers with greater flexibility in selection of instructional strategies. Generally students have no more than four classes each day.
Alternating Schedules	Each class does not meet every day usually on alternate days or alternate semesters. Generally used to provide students additional classes.
Rotating Schedules	Classes actually rotate from day to day throughout the week. A class may meet at a different time each day.
Dropped Schedules	A class is dropped from the schedule and some other class or activity occupies the time. Often used to add an advisory or seminar period one or two times each week.
Trimester Schedules	Divides the year into three trimesters of an equal number of days. Generally there are fewer classes each trimester but they meet for more minutes each day. Used to provide students with additional opportunity to take courses or to provide credit recovery and remediation opportunities.

The Seven Period Day

There is limited evidence that the seven-period day is any more appropriate for students, or improves instruction any better, than any other scheduling model (Hackmann, Hecht, Harmston, Plisa, Ziomek, 2001). A recent study in Washington state found modest gains in reading, writing and math on the WASL (Washington Assessment of Student Learning) for students in a seven-period block and modified block schedule compared to other models (Baker, Joireman, Clay & Abbott, 2006). The researchers caution that many other factors contribute to student success and suggest that “what really matters . . . is that schools select a schedule that meets their particular needs and that schools provide professional development to support” the model (p. 14).

As with any scheduling model there are identified advantages and disadvantages to a seven-period day. They include some of the following:

Advantages:

1. Classes of equal length make assigning teachers and students to courses and classrooms more efficient.
2. Most parents know the traditional fixed period schedule and its implementation will not raise major concerns from parents or community.
3. Because each class meets daily it is often easier for students to catch up on missed work.
4. Teachers who rely on traditional instructional practices will not face the same need to change their practice.
5. May reduce costs when replacing a 4X4 or A/B block schedule.
6. Depending on the length of each individual class it may increase the minutes of instruction.

Disadvantages:

1. If moving from a block or trimester schedule the seven-period day may reduce the number of courses taken by each student and provide less opportunity for electives.
2. Classes are generally shorter (fewer minutes) than in a block or trimester schedule and therefore may provide fewer options for teachers to be flexible in instructional practices.
3. When moving from an A/B or trimester schedule it may make the day appear to be more crowded because of each class meeting daily.
4. Students change classes more often than in some other models increasing the need for supervision and dealing with the disruptions that arise when students move around the school.
5. If a student fails a class it may be more of a challenge to provide credit recovery options.
6. If moving from a block or trimester, students and teachers will have a greater number of classes each day.



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7. There may be concern about the impact on the fine arts program. Generally a seven-period day results in fewer curricular opportunities. Depending on high school graduation requirements there may be fewer opportunities for elective classes.

Considerations When Creating a Fixed Period (Seven-Period) Schedule

In addition to having limited evidence about the effectiveness of any scheduling model, there is also little evidence about the design of a fixed period or seven-period day. Considerations often include the number of class periods, the length of each class, the length of passing time, teacher workload, and operating costs. The following table summarizes what we know about each item.

Factor	Evidence
Number of class periods	There is no evidence about the appropriate number of periods. Decisions are most often made based on resource considerations (budget, personnel). An increase in the number of classes may provide students with more curricular options but also increase the stress associated with the workload for additional classes.
Length of class periods	Again, no evidence about this factor. Most often decisions are made based on the same resource issues described earlier and the collective bargaining agreement.
Instructional Minutes	When moving from an A/B Block Schedule to a seven-period schedule it is common for each individual class to meet for fewer minutes each day but because the class meets five days per week the number of minutes of instruction may increase.
Passing Time	There is no evidence about this but most often consideration is given to the time needed for a student to travel across the campus.
Teacher Workload	There is also no evidence about this but decisions on this factor are shaped by local policy and the collective bargaining agreement.
Operating Costs	Operating costs are always a consideration and are driven by many of the factors mentioned earlier---number of class periods, teacher workload, salaries and benefits. One of the common parameters around adoption of a new schedule is to do so within the current budget and with no increase in expenditures. However, reducing the number of classes taken by each student and/or increasing the number of classes taught by each teacher can reduce the budget. Similarly, increasing the number of classes for each student and reducing the classes taught by each teacher will increase expenditures.

Before adopting and designing a fixed period schedule you must consider each of these factors. While there are lots of examples from other schools (see resource list) there is little evidence that any of the schedules is more effective than any other.

Starting the Discussion

Principals who are most successful at modifying their school's schedule are principals who work closely with their teachers on the issue. They value the ideas and suggestions of their staff and respect the varied points-of-view among their faculty. Several important lessons have been identified (Williamson, 2009; Key Lessons, n.d.)

- **Start with Clearly Identified Goals** – Schools are rarely successful improving instruction and student learning unless accompanied by a discussion about why the change is needed. Clear, specific goals are crucial and help to build support for a new model. The presence of clear goals can help to narrow the alternatives and help to build consensus for the model. Some questions that are other considered include:
 - Do some subjects need more time than others?



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- Do all subjects need to meet each day?
- How do we allocate time based on identified needs of our students?
- **Question Past Practice** – School schedules are often static and remain the same year after year. They provide comfort and familiarity. One way to overcome the tug of past practice is to gather information about the current needs of students and the impact of the current schedule on teaching and learning. For example, a short anonymous survey of teachers and students might gather the needed information.
- **Value Collaboration** – Adopting a new schedule is most successful when it has widespread support among the teaching staff. The evidence is most clear that when teachers and administrators share responsibility for improving instruction the impact on student learning will be greatest. Key to the success of collaborative planning is to assure a balanced review of the options and a full discussion of advantages and disadvantages. Top down administratively driven change is rarely successful. On the other hand if there are significant changes in resource allocation you need to be clear about that so that it becomes one of the factors considered during the discussion.

Summary

A school schedule is a tool that shapes the design and implementation of the instructional program. There is little clear evidence that any one design is better than any other. Each has advantages and disadvantages. A school's schedule is an expression of the school community's priorities and values. Changing the schedule often indicates that priorities are changing. Even when the changes are appropriate because of changing conditions, a change can provoke heated and contentious debate. It is always helpful to use collaborative processes to consider and make such changes. Engaging stakeholders in the conversation can often reduce the friction and much of the divisiveness.

Online Resources:

Schedule Matters: The Relationship between High School Schedules and Student Academic Achievement. (2006). This report prepared by the Washington School Research Center summarizes their findings on the link between high school schedules and student learning.

http://www.spu.edu/orgs/research/WSRC-HS-Scheduling-Research-Report_FINAL-10-03-06.pdf

Blocking the School Schedule: Potential for Instructional Change (2001)

This report from the University of Minnesota Center for Applied Research and Instructional Improvement discusses the results of implementing a block schedule.

<http://www.cehd.umn.edu/carei/reports/docs/BlockingSchedules.pdf>

Secondary School Scheduling Models: How Do Types of Models Compare to the ACT Scores? (2001)

(Hackmann, Donald G.; Hecht, Janet E.; Harmston, Matt T.; Pliska, Ann-Maureen; Ziomek, Robert L.). This study looked at the relationship between school scheduling format and average composite scores on the ACT Assessment after controlling for lifestyle factors, gender, school enrollment levels, number of examinees, and years under the scheduling model. In general, the study found that the type of schedule does not predict the ACT composite scores when examined at the school level. ERIC #:

ED452230 - <http://www.eric.ed.gov/PDFS/ED452230.pdf>

ERIC Research Report on Benefits of Various Scheduling Models

This link provides access to a report describing the benefits of different scheduling models.

http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED457590&ERICExtSearch_SearchType_0=no&accno=ED457590

Scheduling Tools Site

This site links to a set of resources on scheduling provided by the author of three books on secondary school scheduling.

http://www.ronwilliamson.com/RW_Web/Scheduling_Resources.html

Frequently Asked Questions About Transitioning from A/B Schedule to a Seven-Period Day

This handout from the North East Independent School District in San Antonio, TX responds to frequently asked questions about their transition to a seven-period day from an A/B schedule.

http://www.neisd.net/ComRel/NEISD_ABScheduleChange_09/documents/ReplacingtheABSchedule.pdf



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Scheduling Rubric

This site provides a rubric that can be used to initiate a discussion about your school's schedule.

http://www.ronwilliamson.com/RW_Web/Scheduling_Resources.html

Center for Applied Research and Educational Improvement

This site is a good resource for research on the structure of the school day including high school schedules.

<http://www.cehd.umn.edu/carei/>

Planning for the Seven-Period Day

This report from the Plano Independent School District (TX) describes how they planned for implementation of a seven-period day balancing the needs of students with the need to conserve financial resources.

http://www.pisd.edu/news/documents/Planning_for.Seven.Period.Day.pdf

Key Lessons: What Research Says About Reorganizing School Schedules (2007)

This brief article from the Center for Public Education identifies some important considerations when changing a school schedule.

http://www.education.com/reference/article/Ref_Key_lessons_What/

Advantages and Disadvantages of a Seven-Period Schedule

This paper outlines many benefits and costs of a seven-period schedule.

http://www.ritenour.k12.mo.us/rhs/schedule/7_period_traditional_pros_cons.pdf

Scheduling Resources

This site links to several handouts and resources on high school schedules from Dr. Robert Canady and Dr. Michael Rettig.

<http://www.schoolschedulingassociates.com/handouts.htm>

Other Principals' Partnership Research Briefs

High School Schedules - <http://www.principalspartnership.com/hsschedules.pdf>

Trimester Schedules - <http://www.principalspartnership.com/TrimesterSchedulesApr08.pdf>

Block Schedules - <http://www.principalspartnership.com/blockscheduling.pdf>

More on Block Schedules - <http://www.principalspartnership.com/blockschedules2.pdf>

Master Scheduling for Small High Schools (900-1500) - <http://www.principalspartnership.com/masterschedule.pdf>

Examples of Schools/Districts with or Considering a Seven-Period Day

North East Independent School District, San Antonio, TX - www.neisd.net

Wichita Falls High School, TX - <http://www.wfisd.net/wfhs/site/default.asp>

Cypress-Fairbanks Independent School District, TX - <http://www.cfid.net/> and their seven-period bell schedule -

<http://www.cfid.net/campuses/Final%20Bell%20Schedule%207.pdf>

Orange County Public Schools, FL - <https://www.ocps.net/Pages/default.aspx>

Columbia High School, White Salmon, WA - <http://schools.gorge.net/whitesalmon/chs/7pdschedules.htm>

La Grande High School, OR - <http://www.lagrande.k12.or.us/lhs/>

Hall County Schools, GA - http://www.hallco.org/boe/index.php?option=com_content&task=view&id=421&Itemid=49

Plano Independent Schools, TX - <http://www.pisd.edu/>

Print Resources:

Canady, R. & Rettig, M. (1995). *Block scheduling: A catalyst for change in high schools*. Larchmont, NY: Eye on Education.

Merenbloom, E. & Kalina, B. (2007). *Making creative schedules work!* Thousand Oaks, CA: Corwin.

Williamson, R. (2009). *Scheduling to improve student learning*. Westerville, OH: National Middle School Association.

Williamson, R. & Blackburn, B. (2009). *The Principalship from A to Z*. Larchmont, NY: Eye on Education. (Chapter M – Managing School Schedules)



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