

BLOCK SCHEDULING AND ITS GIFT OF TIME: A COMPREHENSIVE REVIEW

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ABSTRACT

This article gives an historical perspective of block scheduling as well as looking squarely at the advantages and disadvantages of it. It focuses on how block scheduling affects such things as school climate, staff morale, and most importantly student achievement. Results from surveys given to administrators and students utilizing block scheduling form the basis for discussing a number of the issues and problems generated by utilizing block scheduling. These issues include such things as the scheduling of students in classes to adjusting individual teaching styles to better meet the needs of learners in extended class periods.

OVERVIEW

The concept of “school reform” has been used for an assortment of theories and practices that focus on how schools are funded, administered, and organized. One particular group of reformers have declared that “time” is the enemy of today’s schools and have centered their reform efforts on school management. Since the publication of *Prisoners of Time*, by the U.S. Department of Education in 1994, this group of reformers has advocated a number of school scheduling innovations. However only one scheduling form has had an ever-increasing impact on today’s schools. It is the scheduling practice we have come to know and refer to as block scheduling.

Although restructuring and block scheduling are concepts that have enjoyed wide acceptance nationally by States from California to Pennsylvania, neither concept is that recent, as Queen pointed out over twenty years ago (Queen, 2000). The idea of restructuring often refers to drastic changes to improve overall student performance (including such things as standardized testing), where efficiency and effective use of school time is clearly a restructuring activity (Merritt, 2017). As well, if one looks back on the concepts of what comprises block scheduling, they will find that the idea of an alternative schedule has a long history to it, beginning as early as 1959, when J. Lloyd Trump felt that the traditional schedule was not the most effective use of time, and he proposed eliminating it altogether. “The Trump Plan,” as his new schooling schedule was called, proposed a “40-minute lecture, a 100-minute lab, and a 20-minute help session each week” depending on the needs of the individual student. Other classes would be shortened to 20- or 30-minute sessions. In the 1960s Joseph Carroll proposed longer teaching periods after reviewing data from students that attended summer school; he attributed the success of the students work to the extended period of time and the modified teaching styles of summer school teachers (Thomas, 2001). Neither plan gained wide acceptance, but both contributed to the discussion and essentially laid the groundwork regarding the impact of time segments in educational settings.

The notion of an alternative schedule was again on the rise in the 1980s after the National Commission on Excellence in Education published *A Nation at Risk*. The document reported American children were not excelling academically when compared to other industrialized nations, therefore concluding that the educational system in the U.S. was inferior, and time management needed to be reevaluated (Poppink et al., 2019). The use of school time came under particular scrutiny in the 1990’s after the

National Education Commission on Time and Learning stated, "...learning in America is a prison of time. The degrees to which today's American school is controlled by the dynamics of clock and calendar is surprising even to people who understand school operations." (Lawrence & McPherson, 2000). The Time and Learning Report (1994) also noted that only about 60% of the time students are actually in school is spent in actual classroom direct instruction of content teaching and learning. This of course was sobering at the time, to realize that a significant amount of time that students were spending at school had little to do with learning content material. The study pointed out that between transition time, lunch, some electives, and homeroom, as well as/or advisement there appeared to be a lot more actual minutes that could be put into appropriate classroom use.

The reality of block scheduling to this day continues to appear in a variety of different forms. A number of schools have experimented with language arts and economics/civics classes in which two single periods were simply combined into one 110-minute class. The combining of classes as an interdisciplinary approach was not new, as vocational schools throughout the United States had used double periods and extensions of time for decades. But as the more academic courses began adopting varied forms of block scheduling, new perspectives of teaching and learning were also evolving (Gregory & Herndon, 2010).

Evaluations of schools that adopted block schedules in the 1980s and 1990s reported both positive and negative findings. In a report prepared by the Center for Applied, Research and Educational Improvement at the University of Minnesota, high schools using block schedules show improvements in such areas as student behavior and discipline, student attitudes toward school, teachers' collaboration, and levels of teachers' stress. These were the overall developmental insights and concerns about block scheduling leading up to 2000, but what about the actual make-up and delivery methods for actually using block scheduling? Let us now look at the five most utilized types of block scheduling.

DIFFERENT TYPES OF BLOCK SCHEDULING

There are basically five categories of block scheduling, 4 x 4; The Alternate Day Schedule; Copernican Plan; Hybrid Plans, and the Parallel Block Scheduling. These are the five basic plans and all of them have been and are continued to be modified slightly from school to school. That said it is easy to see that there are an infinite variety of these plans being used throughout the United States in today's schools.

A. The 4 x 4 Semester Plan

David Hottenstein and Robert Lynn Canady are credited with designing the 4 x 4 Plan. In this plan all standard yearlong courses from the traditional daily schedule are converted into semester courses of 90-minute classes. All former half-year long courses are converted to period courses of 90-minutes in length (Ellerbrock et al., 2018). A student takes a total of four courses per day, two in the morning and two in the afternoon. Teachers teach three classes per day, with either a 90-minute planning period or a 45-minute planning period and a duty. All teachers and students would receive a new schedule for the second semester that was planned at least a semester in advance.

B. The Alternative-Day Schedule

The Alternative-Day Schedule (Kamran et al., 2019) sets classes every other day in extended time blocks that range from 80 to 120 minutes. This plan is similar to the 4 x 4 plan except that every other day a student has four different classes. The student carries eight classes for the entire year.

However, they meet only every other day. Teachers generally dislike this method because they often must teach between 150-200 students in one day. Also, the variety of preparations can make planning a nightmare.

C. The Copernican Plan

The Copernican Plan (Carroll, 1990) was designed by Joseph M. Carroll. In this plan a student has just two classes per day, each 180-minutes. These courses are accelerated and completed in just 30 school days. This method enables students to concentrate on just two classes at a time. Every 30 days the schedule for every teacher and student changes. Again, this type of scheduling causes teachers to have to plan many different types of instruction such as lecture, cooperative groups, and simulations for each class period. It also can be a scheduling nightmare.

D. Hybrid Plans

Hybrid Plans (Boarman & Kirkpatrick, 1995) are schedules that use a combination of 90-minute blocks of time along with traditional shorter periods of time. These types of schedules are usually used to allow the “core” curriculum, such as English and Mathematics, to operate under a block system, while allowing courses that require yearlong student participation to meet the entire year. This type of block scheduling works well with Advanced Placement Courses and Special Education.

E. Parallel Block Scheduling

A parallel block schedule is the format most commonly used in elementary schools. The general definition holds true for the parallel block as well. Snell, Lowman, and Canady describe parallel block scheduling (PBS) as:

A flexible method of scheduling that addresses student grouping, time for teacher planning, and scheduling of subjects, support services and staff. PBS allows both small instructional groups to be scheduled for subjects like directed reading and math and larger groups for other subjects. Support services, which may have been pull-out remedial or enrichment programs, are scheduled primarily during Extension Center time, thereby reducing class interruptions and the stigma associated with leaving the class for special services. Students with disabilities are supported in classrooms alongside their nondisabled peers. The special education teacher serves as a consultant to the base teacher, a co-teacher, an Extension Center teacher, and a member of collaborative teams. (Snell, Lowman & Canady, 1996, p. 265)

This description of PBS also sounds like an advertisement but well worth the effort.

WHY CONSIDER BLOCK SCHEDULING

There is a philosophy or intent behind these types of schedules or trends. Many have come to believe it is a method for dealing with massive curriculums, time constraints, and varied student abilities. Rettig and Canady wrote in their 1997 article that they had identified four factors that are leading schools all over the United States to adopt some form of block or alternative scheduling. The factors they identified were:

1. When students attend as many as eight relatively short classes in different subjects every day, instruction can become fragmented; longer class periods give students more time to think and engage in active learning.

2. A schedule with one relatively short period after another can create a hectic, assembly-line environment.
3. A schedule that releases hundreds or thousands of adolescents into hallways six, seven, or eight times each school day for four or five minutes or noise and chaotic movement can exacerbate discipline problems.
4. Teachers benefit from more useable instructional time each day because less time is lost with beginning and ending classes (Rettig and Canady, 1997).

Even though more and more schools are changing over to block scheduling in some format, there is still considerable criticism from educators and parents. One of the greatest concerns is what will students do for ninety minutes? Proponents of block scheduling cite active learning as the key to keeping students engaged and learning during longer periods. But what if the teaching style is a lecture/paperwork format?

Several other reasons are given for the move toward block scheduling. One reason is that teachers are unable to complete an objective in the traditional 55-minute class. The lecture format is often the only teaching strategy used so little active learning occurs. Teachers in disciplines such as chemistry, biology, and business are not able to instruct, complete a lab assignment, and wrap up a lesson in this short amount of time (Ellerbrock et. al., 2018).

Santos and Rettig (1999) identified another interesting reason for moving to block scheduling at the high school level. With the increase in graduation requirements, students need more opportunities to take classes. Students are not able currently to enroll in vocational education, music, or art classes. The current graduation requirements leave little room for electives that are of interest to students. To address this problem, high schools blindly added an additional class period without lengthening the school day. This of course leads to even shorter class periods where teachers are not able to spend individual time with students that are in need of additional help.

A third reason that encourages changing the traditional schedule, is the fact that teachers are teaching as many as 125 to 180 students a day. This often creates an impersonal environment where teachers are not allowed to get to know their students the block schedule would change this (Stepp, 2007).

Discipline problems are also an issue mentioned by Kaya and Aksu (2016) that has led to the need for alternative scheduling. With students changing classes seven times a day in small hallways, chaos is created. The block schedule is a way to address the amount of time spent each day in the hallway. With fewer classes, students are not spending as much time changing classes.

There seems to be many reasons for administrators to choose a block schedule over a standard school day. Lopez noted that administrators whose schools adopted the four-block model stated that it offered a potential solution to the following concerns:

- Classes too large
- Too many classes per student and teacher
- Insufficient time for lab classes
- Too many failures
- Too many dropouts

- Too many preparations for teachers
- Too little time for individualized instruction
- Inadequate time for a variety of instructional methods
- A high level of stress due to time constraints for both students and teachers
- Few team-teaching opportunities
- Too many students-student and students-teacher conflicts
- Too many trancies, absences, and tardiness
- Class, lunch, and passing periods too short
- Too much vandalism and inappropriate behavior (Lopez, 1996)

BENEFITS AND ADVANTAGES

Recently when educators look at possible reasons for lack of achievement and take into account the differing abilities of their students they start to search for change through scheduling. These scheduling changes are also linked to the decreased reliance on the standard lecture-discussion-seatwork patterns of instruction and the increase of successes that individualization and creative teaching strategies have shown (Biesinger, 2008). Obviously block scheduling has become a visible possibility. Bethal High School, Virginia, has confirmed these benefits from using block scheduling in the mid-1990's:

1. Encourages organization, time management and the development of study skills.
2. Provides opportunities for in-depth learning
3. Promotes active rather than passive learning
4. Provides more time for teachers to identify student needs, respond individually to student performance, and offer students appropriate accelerated and remedial assistance
5. Provides increased opportunities for student learning and success because of the longer duration of each class period. Less time will be spent starting and closing the activity
6. Stimulates student thinking by providing time for a variety of learning activities within a class period
7. Provides more time for the development of meaningful rapport between students and teachers
8. Increases instructional planning time for teachers
9. Provides the structure for interdisciplinary coordinatio
10. Teachers will have in-common planning time, which will provide opportunities for parent conferences, and continual and relevant staff development and training (Williams, 1997, p. 4).

These are benefits that one high school found while implementing the block. Other schools have found similar benefits as well as differing benefits. Some measurable outcomes or differing benefits

of the block are in a 2020 report by Lai et al., (2020). They noted less discipline problems and higher achievement are recorded in their study. Wilson and Stokes report also that there are many studies that identify general achievement staying the same for a period of two to three years but then increasing dramatically on or around the fourth and fifth year. Discipline problems, they also identified as decreasing markedly causing administrators to be happier. Just the improvement of behavior alone seemed to be an assumed cause for other positives, like school climate. Grades were also cited as another indicator of success in the block.

Proponents of block scheduling make several other assertions as to its positive impact on student learning and student achievement. Researchers assert that the increased amount of time offered by block scheduling can result in an increased percentage of students achieving honor roll status and that larger blocks of time might lead to more projects and individualized instruction (Forman, 2009). Arnold (2002) found that schools in the first two years of being on the block schedule outperformed schools on a traditional seven period day, as measured by mathematics test scores. There is also evidence that grade point averages increased and the number of students on the A-B honor roll increased. Also, failure rates declined for those schools on the 4 x 4 block plan and student tardiness was reduced. There is also evidence that discipline referrals may be reduced by up to 35% and that in-school suspension rates drop (Rettig & Canady, 2001). As for teacher reaction to block scheduling, earlier research by Queen and Allen (2000) suggests that after block scheduling was implemented teacher satisfaction with scheduling rose from 52% to 87%. Teachers reported that they felt the longer classes were “better” than shorter classes. Fewer preparations and a feeling of greater flexibility also contributed to the overall feeling of teacher satisfaction. According to the Queen and Allen study, 81% of teachers felt that block scheduling had “positively affected student achievement,” and that block scheduling had helped students to retain key concepts of the curriculum (Queen & Allen, 2001).

According to a recent on-line article about “Different Types of Flexible Schedules for Schools” (2020) block scheduling allows teachers to use a variety of instructional strategies and flexibility to tailor lessons to the learner, and that this qualifies the block schedule as one element of educational restructuring that creates the opportunity for teachers to make significant improvements in instruction. The assumption being that an improvement in instruction has a direct correlation to improved student learning.

Moving from a traditional model of instruction, 45-60 minutes per class, to a block model, 90 minutes per class, requires a modification of teaching methods. The traditional review, lecture, test method used by many teachers in a shorter class period will not work well in a 90-minute period. A 2001 article by Jenkins, Queen, and Algozzine in the National Association of Secondary School Principals journal noted that teachers feel the need for sustained in-service preparation as their school moves to block scheduling. Rettig and Canady also stated that even-though schools may change or adapt a type of block scheduling, recent research affirms the staying power of block scheduling has to do with teacher adjustment and commitment. Finally, Rettig and Canady also reported in 2001 that over the previous eight years only 1.3% of schools in Virginia that adopted a block schedule format have returned to a traditional format. And in the same time period 75.7% of Virginia high schools that adopted some form of the block have remained on it.

DISADVANTAGES

Researchers have also pointed out that there are some growing concerns associated with block scheduling. Substitute teachers for instance present one problem for instruction in a block format. According to focus groups conducted with teachers, parents, and students, both teachers and students voiced concerns about the effectiveness of substitutes. Teachers stated that it was often difficult to provide substitutes with enough meaningful activity to fill extended periods. Students also voiced these same concerns, often work assigned by substitutes was tedious, and not engaging, leading to boredom and frustration, which can also increase discipline problems (Rettig & Canady, 2001).

Another concern with the block is the fragmenting of subjects and skill or information retention. Subjects such as mathematics and music require continuity. Some researchers have found that students may experience difficulty in retaining information from courses when they skip material for a semester. This has also been cited as a problem with foreign language classes (Rettig & Canady, 2001). Students that transfer from a school on a traditional schedule to a school on block schedule may also find it difficult. Furthermore, retention from one grade level to another has also been cited as a problem (Queen, 2000).

Several researchers have also argued that data collected do not always support student achievement related to block scheduling. Lare, Jablonski, and Salvaterra, note in their 2002 research study that though many schools report an increase in students on the honor roll after changing to a block schedule and that students receiving lower grades decreased slightly, but that measures on college entrance exams did not change significantly. Arnold cited in his research (NASSP Bulletin, 2002) that though the goal of block scheduling is to improve students' academic performance, the results of a comparison study of a seven period A/B block to a traditional seven period schedule from 1991-1996 found that "no meaningful or practical differences" between the two schedules could be identified. Arnold also noted that in the first two years of adopting the block, schools on the block outperformed those on traditional schedules. However, over a three-year period, schools on a traditional schedule outperformed schools on a block schedule. In both cases Arnold noted that in none of the cases reviewed was the level of achievement "significant or meaningful based on mean scale scores" (Arnold, 2002).

Though there are arguments as to the effectiveness of block scheduling some researchers contend that it is not the format itself that fails to produce desired outcomes but the lack of teacher training on teaching in the block and the lack of variety of teaching styles, as earlier noted, that results in mediocre student achievement.

It is extremely difficult to separate the effects of block scheduling into categories such as school climate, teacher morale, and student achievement because each of these independent areas affects the other area. In fact, these areas function like the Rubber Band Triangle discussed by Gross (1998); when one area (school climate, teacher morale, or student achievement) is affected by block scheduling, the other area is also affected, making it difficult to determine which element is causing the effect and which element is being affected. What is important to note is that block scheduling can work and be effective in the classroom.

EFFECTS ON SCHOOL CLIMATE

The area of school climate has been of particular interest to those researching the effects of block scheduling. Studies have shown that teachers and administrators feel strongly that the change to block scheduling creates “a more relaxed environment for teachers and student” and that there are fewer discipline problems on the block, which contributes to a more positive school climate (Shortt & Thayer, 1999, p. 77). Furthermore, the results of block scheduling often foster collaboration among faculty and staff, which further promotes a positive school climate. According to Queen and Gaskey (1997), there are eight elements to block scheduling that can enhance school climate:

1. Curriculum alignment, which expands course offerings, apprenticeship opportunities, post-secondary classes, and more opportunities for electives.
2. Developing pacing guides for time management that allow for quality coverage of curriculum not quantity coverage.
3. Instructional strategies and lesson designs that encourage teachers to move away from the lecture format and vary their presentation of materials which allow students to concentrate for the longer blocks of time.
4. Classroom management and improved discipline due to the emphasis placed on being in class and less time in between classes to cause disruptions.
5. Advanced placement and honors classes that have the possibility to extend over the course of the whole school year.
6. Special student populations who can repeat necessary classes without failing a grade or students who can more readily participate in inclusion due to the different structure of class activities.
7. Assessment and evaluation that can take place in the form of portfolios, doing group and individual projects, completing surveys, and giving oral presentations due to extended time in class.
8. Knowing that the next semester and a new schedule come after only ninety days in class.

Another observation of school climate was completed by Bruckner (1998) who observed teachers during their first year of implementation of block scheduling to analyze the working environment. Bruckner found that “teachers who chose to work in collaborative teams as part of their evaluation cycle would participate in peer-partnering processes or seek student feedback about their teaching methods” under block scheduling on a volunteer basis (1997, p. 42). These meetings evolved to include informal classroom observations, instructional goals, and sharing sessions, which continued throughout the school year. Bruckner, therefore, concluded that the camaraderie among faculty while implementing block scheduling affected not only teachers’ attitudes but also the entire school climate (1997).

TEACHER MORALE

An element of school climate, teacher morale, has also been an important area of discussion during the new era of block scheduling. Teacher morale has increased under block scheduling, according to several studies (Ellerbrock et al., 2018; Loeser, 2017; Shortt & Thayer, 1999). However, studies also show that this increased morale is not simply due to the effects of block scheduling. In fact, what seems to have contributed most significantly to staff morale, where clock scheduling is concerned, is

the appropriate staff development for implementing the new schedule (Hoover, 1999). Teachers who completed lengthy professional development before and during block scheduling implementation tended to view the new schedule as a positive change. In fact, the in-service and professional development for the implementation of the block where teachers “communicate and collaborate led to a positive attitude toward change” (Hoover, 1999, p. 3). Bruckner’s studies (1997) confirm that the teacher sharing sessions that took place as a result of block scheduling increased teacher morale due to the fact that teachers felt they had a choice to participate and take part in the sharing sessions. Teachers were able to lead discussions and participate in sharing sessions with focused discussion. These sharing sessions encouraged cross-disciplinary discussion and integration of curriculums. Leaders from these sharing sessions shared notes of their sessions and communicated with administrators’ perspectives and views of their respective groups.

When teachers support a significant change in the school because they feel that it will benefit students, teacher morale is going to increase. As a result of this increased morale, teachers will be more willing to choose appropriate curriculum while individualizing instruction for students which will in turn increase student achievement, the ultimate goal of any change in a school environment.

GENERAL CONCEPTS FOR IMPROVING STUDENT ACHIEVEMENT

Certainly, the question of student achievement under block scheduling permeates the questions being asked by those who have or will implement block scheduling. In a study about students’ perceptions of block scheduling conducted by Casey Hurley, students reported that “they liked the new schedule because they were getting better grades, they had more time for in-depth study, they received more individual attention from teachers, their lives were less hectic, and they had a fresh start after the semester” (1997, p. 64). Another advantage students mentioned in this survey concerned participating in extra curricular activities during the school day. Under block scheduling, some schools developed a separate schedule to accommodate these activities, which students enjoyed (Hurley, 1997).

In contrast to students’ positive opinions concerning block scheduling, a major criticism of block scheduling has been that some of the curriculum content is lost, especially at the high school level (Hoover, 1999). However, studies show that even though some actual quantity of time is lost, this loss is more than compensated for by the quality and in-depthness of the curriculum (Marshak, 1998). For example, a study conducted in Georgia shows that after two years of block scheduling, ITBS scores in reading rose from 36 in 1995 to 53 in 1997, and in math they rose from 48 in 1995 to 71 in 1997 (Delany, Toburen, Hooton, & Dozier, 1998).

Students can also benefit from the differing teaching techniques that are a result of the extended time available on block scheduling. These teaching techniques can be centered around learning and experiencing, not imply watch and memorizing, which should continue to improve student achievement. Canady and Rettig (1996) offer several components of block scheduling that can further increase student learning and achievement:

1. Simulations that actively involve students in reality-based learning by allowing them to role-play scenarios in order to problem-solve.
2. Learning centers that allow teachers to work with small groups or individuals while other students are able to remain engaged in active learning.

3. Integrated technology that allows students the necessary time to explore and actively participate in the learning process.
4. Content area literacy instruction that assists students in the critical areas of reading and writing.

While these strategies are sometimes implemented using a traditional schedule, what seems to be the primary difference under block scheduling is that they are more effective due to the ability to engage the learner for longer periods of time thus allowing him a more in-depth study of the subject matter.

Certainly, quantitative research involving grades, standardized test scores, AP scores, and grade point averages needs to be conducted to further ensure that these positive changes in the classroom are concretely affecting student achievement. The bottom line is that no matter how much a school climate or classroom environment improves or the height of staff morale, the community will always demand concrete results to prove effectiveness. The same will be true of block scheduling.

RESEARCH FINDINGS TO DATE

Many school systems feel as if the ultimate sign of a successfully restructured school is marked by an increased in standardized test cores. Arnold (2002) states that there is no significant difference in standardized test scores of students on traditional schedules and students on block schedules. His argument is based on results of the Tests of Achievement and Proficiency (TAP). The TAP measures a student's reading comprehension, basic mathematic ability, written expression, social studies (including geography) and knowledge of science concepts and techniques (Arnold, 2002).

Prior to Arnold's study, Lawrence, and McPherson (2000) conducted a similar one that analyzed the data from an End-of-Course Assessment in a southeastern school district of North Carolina. The End-of-Course exam measures a student's knowledge in algebra, English, social studies, and biology. Their data involved the results from tests over a three-and-a-half-year period; the results are from 2,706 students on a traditional schedule and 2,053 on a block schedule (Lawrence & McPherson, 2000). The results of their data collection likewise showed that there was not a discernable difference in achievement between the traditional schedule and block schedule (traditional schedule scores were slightly higher in all areas).

In addition to the lack of improvement in standardized test scores, other issues have been found that cautions schools systems from accepting block schedules. First, offering and taking foreign language courses consecutively becomes imperative to avoid issues with achievement (Queen, 2000). For example, if a student completes a year of Spanish I during fall semester under the 4 x 4 block, but Spanish II is not offered until the following fall semester. The student possibly would not retain the information necessary to be successful in the second year class. Performing arts classes are also a concern because students may only take the class for a semester to fulfill an elective requirement; or, there may be issues with scheduling fall and spring semesters like the foreign language courses (Queen, 2000). Also, Queen (2000) recognized that students taking Advanced Placement (AP) classes during the fall semester may not be prepared for the exit exams that are only offered at the end of spring semester because of the lapse in time (retention of information).

Some states, such as the previously mentioned California and Pennsylvania, have experienced great success. California reported a 66% reduction in failure rates, while Pennsylvania found a greater distribution of passing grades, lower dropout rate, and high AP exam scores were the benefits of block

scheduling (Queen, 2000). Why did this occur? According to Shortt and Thayer (2000) one of the benefits of block scheduling is a decline in discipline issues. This can be attributed to the reduction in travel time. With the reduced number of class changes, students do not have as many opportunities to create disruptive/counterproductive situations because of the total amount of time spent indirect supervision (Shortt & Thayer, 2000). Furthermore, discipline problems are reduced because students have a greater opportunity for academic success (Shortt & Thayer, 2000). Furthermore, students report that they enjoy block scheduling because it allows them greater opportunity to concentrate on fewer subjects and have time for remediation in difficult subjects (Queen, 2000). Additionally, according to Thomas (2001), some courses, by their very nature, demand more time (i.e., science, consumer sciences, and performing arts).

SUGGESTIONS FOR MAKING BLOCK SCHEDULING WORK

Before entering a block schedule, teachers should first have a significant amount of staff development (Queen, 2000). Staff development should identify the functions of block scheduling, alternative assessments, collaborative learning strategies, etc. Furthermore, staff development should not stop once block scheduling is implemented. Principals should continue to offer support because according to Shortt and Thayer (2000), the next two to three years are equally as important as the first year in becoming acclimated to the new system. Failure to properly train and continue to support teachers is one of the main area of concerns for teachers in (or entering) block schedules (Jenkins, Queen, & Algozzine, 2002). Often teachers return to their traditional schedule practices (i.e., lecturing) in the classroom because of lack of training and because it is familiar; therefore, it is comfortable to them. So, teachers need to be open and receptive to methodologies introduced in staff development and apply them in the classroom. Queen (2000) suggests that teachers change activities in a block-schedule classroom every ten to fifteen minutes. This will break up the monotony of an extended lecture. For example: (1) a sponge activity that may review a passed concept or introduce a new one; (2) a lecture introducing the lesson; (3) a collaborative exercise; and (4) review. Most of the time will be spent on the collaborative exercise. Examples of collaborative exercises could be a case method, Socratic seminar, project, or role-playing (Queen, 2000).

Also, principals should try to avoid scheduling problems, such as with foreign language courses and electives. This requires planning ahead. Shortt and Thayer (2000) suggest that principals consider frequency and sequence when creating a master schedule. They suggest creating a master schedule that is planned four years in advance so that freshmen will be able to take the courses required for graduation without problems (Shortt & Thayer, 2000). Well-constructed planning periods will allow opportunities for collaboration on team activities and tests, and give teachers an opportunity to observe their peers during the time of transitioning from traditional to block (Shortt & Thayer, 2000). Finally, principals should make data driven decisions by evaluating attendance, dropout rates, classroom results, etc. (Shortt & Thayer, 2000). If something is not working, it needs to be reevaluated.

So why are not more schools using block schedule? Fear and comfort. Block scheduling is a vehicle. It does not solve all issues of achievement, but it is an alternate means of transportation when the current method is not working. Yet, many school systems, school administrators, teachers, parents, and students are comfortable with their old vehicle. You must do research before getting a new vehicle, test drive, and ultimately spend money. The old vehicle may not be the most reliable but it is familiar; therefore, many are not willing to try another.

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