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THE INFLUENCE OF A SCHOOL'S SCHEDULE ON
TEACHING PRACTICES AND BEHAVIORS

by
Ann Moore

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University

Approved by _____
Professor

Date Approved May 2002

ABSTRACT

Ann Moore

The Influence of a School's Schedule
on Teaching Practices and Behaviors
2000

Dr. Ronald Capasso
Educational Leadership

In 1999 the teaching staff at Washington Township High School and the teaching staff at Upper Darby High School was asked to participate in a study of the influence of a school's schedule on teaching practices and behaviors. This study investigates the classroom behaviors and practices of high school teachers both in a traditionally scheduled school and in a block scheduled school. This report presents the results of an analysis of a survey administered to a stratified random sample. The results of the survey were compiled manually and appear in tabular form. The analysis of the data reveals the frequency at which various teaching practices occur and the level of satisfaction experienced by the teachers in their particular schools. The analysis of the results of the teacher survey yields the following findings: Teachers in the 4/4 block schedule are slightly more likely to use a variety of teaching methods during each class period; they report greater satisfaction and enthusiasm about their school; they are more satisfied with the amount of planning time they have; and they report a greater desire to remain in their current schedule than the teachers in the traditional schedule.

MINI-ABSTRACT

Ann Moore

The Influence of a School's Schedule
on Teaching Practices and Behaviors
2000
Dr. Ronald Capasso
Educational Leadership

This study investigates the classroom behaviors and practices of teachers in a traditionally scheduled school and in a block scheduled school. The analysis of the data yields the following findings: Teachers in the 4/4 block schedule use a variety of teaching methods; report greater satisfaction and enthusiasm about their school; are more satisfied with planning time; and report a greater desire to remain in their current schedule than the teachers in the traditional schedule.

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Finally, and most importantly, I would like to dedicate this study to my family, whose support has been crucial to my success and piece of mind. To achieve my educational goals has sometimes meant missing time with my family, but their unselfish support and love was always evident throughout this internship. For this I am truly thankful.

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Chapter 1

Introduction

Focus of the Study

The organization of a high school's educational program revolves around the structure of the daily schedule. Factors such as delivery of instruction and student-teacher interaction are influenced by the daily schedule. In a sense, it is a time management tool which enables educational programs to be realized, restrained or restricted (Pisapia, Westfall, 1997). To many in the educational reform movement, the traditional schedule, which usually consists of seven or eight periods of 40 to 50 minutes, is too inflexible and restrictive to properly implement innovative, student-centered teaching strategies.

The focus of this study is on the teaching practices and behaviors of two groups of high school teachers. The teaching practices and behaviors of the Washington Township High School teachers, who work in a traditional, eight period day schedule, are compared to the teaching practices and behaviors of the Upper Darby High School teachers, who work in a four period semester block schedule.

Purpose of the Study

This study investigates the classroom behaviors and practices of high school teachers both in a traditionally scheduled school and in a block scheduled school.

One of the many issues related to block scheduling is the claim that

extended periods of time allow teachers to use a greater variety of teaching methods, many of which are student-centered. According to the National Training Laboratories, student retention rates increase as the emphasis of the lesson moves from teacher-centered to student-centered. For example, when students listen to a teacher lecture, the average retention rate is 5%. When they are part of a discussion group, the average retention rate increases to 50%. When students are involved in hands on activities, the average retention rate jumps to 75%.

Another assertion of block scheduling proponents is that topics can be covered in greater depth, thus requiring the use of higher level thinking skills. One of the sharpest criticisms of American education came in 1984 when the National Commission on Excellence in Education published *A Nation at Risk*. In the fifteen years since that report, education reform has encompassed many movements designed to address the deficiencies in American education. According to Kagan, it is increasingly the responsibility of schools to produce students capable of higher-level thinking skills, communication skills, and social skills (Kagan, 1992). Block scheduling is just one element of the educational reform movement that seeks to increase school effectiveness. In fact, the push for effectiveness has led to an educational reform industry. It is healthy for school districts to engage in ongoing self-evaluation. However, before a district jumps on a bandwagon, it is wise to do a thorough, research-based investigation. In their book, *Studying Your Own School*, Anderson, Herr and Nihlen (1994) emphasize the use of practitioner research to gain site specific knowledge. This study is a self-inventory of teaching practices and attitudes that can serve as a catalyst for change.

Based on the activities of this study, the intern had expected to find that

teachers in the traditionally scheduled school used a higher percentage of whole class instruction than the teachers in the block scheduled school. Conversely, teachers in the block scheduled school use a greater variety of teaching methods, such as, small group activities and higher-level thinking activities than teachers in the traditionally scheduled school. A block schedule also provides for a greater opportunity for individual student instruction than in a traditional schedule. Finally, teachers in a block schedule have a higher degree of satisfaction with student achievement, student attitude and teacher workload than the teachers in the traditional schedule.

The purpose of this study is to identify and compare the teaching processes and classroom activities employed by one block scheduled high school and one traditionally scheduled high school using action research. The results of the study delineate those teaching practices most common to each type of schedule in the respective schools.

Definitions

For the purpose of this study the following terms are defined as follows:

Block Schedule- a schedule in which the school day is divided into four class periods of approximately 85 to 90 minutes per period.

Traditional Schedule- a schedule in which the school day is divided into eight class periods of 45 minutes per period.

WTHS- Washington Township High School

UDHS- Upper Darby High School

Limitations of the Study

Since the data gathering technique for this study is a survey instrument to be distributed in only two schools, the sample size is small. A stratified random sample of the faculty members of each school was selected to complete the

survey. The information gleaned from these surveys reflects an adequate representation of the teaching practices of the staffs at Washington Township High School and Upper Darby High School but cannot necessarily be generalized to other schools with similar schedules. Because of the nature of the survey method for collecting information, there is a chance that some respondents may overrate or underrate their teaching practices and, therefore, skew the data. In addition, if a respondent has a bias in favor or against block scheduling, it may influence the survey results. Administering and collecting the survey at Washington Township may be more successful since the intern is a faculty member there and has a professional rapport with the staff. At Upper Darby, the distribution and collection of surveys will be performed by a department supervisor and the staff reaction to the survey is uncertain.

Setting of the Study

Washington Township is a premiere community in Gloucester County, New Jersey, with an ideal location between Philadelphia and Atlantic City. Covering approximately 22 square miles, it is also the largest community in Gloucester County, New Jersey. The population is 47,500. Washington Township is governed by an elected Mayor and five elected Council persons. Over the past forty-five years, Washington Township has changed from a primarily rural, farming community to a sprawling residential, suburban community with the most rapid growth taking place in the past fifteen years. The first major development of land took place in the 1950's when several single-family housing developments were built. The next phase of major development began in the 1980's and continues today. The orchards and farmland that once dominated the countryside are gradually giving way to housing developments. Population growth became so rapid at one point in the 1990's that the

community called for a moratorium on building.

As the population of Washington Township has grown over the years it has also grown in diversity. A population that was once primarily European-American has expanded to represent many other cultures and ethnic groups including African-Americans, Latinos, Asian Americans, and Indians.

As the community population increased over the years the school population grew at such a fast rate that the district often had difficulty providing adequate facilities to house all the students. For a period of time in the 1970's, the district used split sessions to accommodate all of the students at the secondary level. At the present, the average student-to-teacher ratios are reported as follows in the Superintendent's Report to the Community: kindergarten - 22 to 1, grades 1 to 5 - 26 to 1, grades 6 to 8 - 26 to 1, and grades 9 to 12 - 24 to 1.

The educational history of the Washington Township Public Schools dates back to the Old Turner's Schoolhouse which was eventually replaced in 1855 by a new two room schoolhouse called the Bunker Hill School. Then, in 1922, the New Bunker Hill School was built with four classrooms with two grade levels in each room.

The rapid growth of the school district over the years has lead to a steady pattern of building new facilities as follows: In 1936 Grenloch Terrace School was built; Hurffville School in 1957; Washington Township High School in 1962; Whitman Elementary School in 1965; Bells School in 1967; Birches School in 1968; Wedgewood School in 1970; Washington Township Middle School in 1980; Thomas Jefferson School in 1984; Orchard Valley Middle School, Chestnut Ridge Middle School and the Early Childhood Education Center in 1990; and the High School Core Facility and Bunker Hill Middle

School in 1996. The school district experienced a significant period of growth during the years of 1985 to 1995 when student enrollment increased by thirty-seven percent. Presently in the 1999-2000 school year, the student enrollment of the Washington Township Public Schools is just under 10,000.

As of the 1996-1997 school year, the expenditure figure of total comparative cost per pupil was \$7,228, compared to the state average of \$8,850 per pupil. These figures include classroom salaries and benefits, general supplies/textbooks, purchased services and other expenditures. They also include support services, salaries, and benefits, administrative salaries and benefits, operations and maintenance of plant salaries and benefits, total food services costs, total extracurricular costs and total of extra "miscellaneous" costs. (New Jersey School Report Card, 1996-1997).

The Washington Township School System has a central administrative staff consisting of a Superintendent, a School Business Administrator/Board Secretary, an Assistant Superintendent of Curriculum and Instruction, an Assistant Superintendent of Student Personnel Services, a Supervisor of Student Personnel Services/Child Study Teams, a Director of Secondary Curriculum and Instruction, a Director of Elementary Curriculum and Instruction, and a School/Community Relations Coordinator.

The administrative configuration in the various schools of the district is as follows: The pre-school and the six elementary schools each have a principal and the two largest schools also have assistant principals; the three middle schools have a principal and two assistant principals; and the high school has a principal, two executive principals overseeing the operations of the 9-10 and 11-12 wings, four grade level assistant principals, an assistant principal in charge of alternative school, an assistant principal in charge of athletics and

student activities, and ten department chairpersons.

The first graduating class of Washington Township High School back in 1962 had approximately 120 students. In contrast, the class of 2000 numbers approximately 700. The total student population of Washington Township High School for the 1999-2000 school year is just over 2800. The present high school facility consists of a large complex which includes a 9-10 Wing, an 11-12 Wing, and a Core Facility. There are 228 faculty members and 45 teaching assistants.

The Washington Township High School students come from primarily middle income families. Academically, they perform consistently well with 82 percent of the population earning a GPA of 80 or above in the 1998-1999 school year. Results from the first time Grade 11 HSPT Test takers in the fall of 1998 indicate that 95.4 percent of the students passed. One of the Washington Township High School QAAR goals for the 1999-2000 school year is to increase the Mean SAT Verbal and Math scores of college-bound seniors by two points by concentrated instructional strategies. About 75 percent of Washington Township High School seniors take the SAT. Baseline data from the 1997-1998 school year are as follows: Mean Verbal SAT Score - 517; Mean Math SAT Score - 511. Our students' scores place them in the top 25 percent of the nation. According to the School State Report Card, filed with the Department of Education, approximately 80 percent of the Washington Township students score above the national average on achievement tests. Nearly 87 percent of Washington Township High School graduates go on to some form of post secondary education (52 percent to four year colleges, 35 percent to two year colleges) and the remaining students go on to attend trade or technical schools, join the work force or enter the military (Superintendent's

Report to the Community, 1999). The high school drop out rate is 3 percent in comparison to the national average of approximately 26 percent. The attendance rate for the 1998-1999 school year was 93.7 percent.

The total district budget for the 1999-2000 school year is \$85,361,048. Of that total budget, just under \$38,000,000 comes from local taxes. The school tax rate is \$1.66 per \$100 of assessed value, which means the average home owner with an assessment of \$120,987 pays \$2,009 in taxes. Of the 24 communities in Gloucester County, Washington Township ranks fourteenth in the amount of property tax paid. In spite of this information, the voters of Washington Township have failed to pass a school district budget for the past seven years. Voter turn out is usually poor and has been as low as thirteen percent.

Significance of the Study

For the past several years Washington Township High School has been investigating block scheduling to determine whether to implement a non-traditional scheduling process at the high school. Since the initiation of the investigation, many groups, including administrators, teachers, students, parents and board of education members, have visited block scheduled schools throughout New Jersey, Pennsylvania and Maryland.

The visitations provided the investigative teams with a great deal of information, including but not limited to: implementation plans, scheduling procedures, teaching methodologies, and attitudes and opinions of teachers, students and administrators. In addition, groups had a chance to observe both classes and the general climate of the schools. While this is an important step in the investigative process, other research-based activities can provide useful information.

Since the emphasis of this study is on classroom behaviors and teaching practices, there are several significant outcomes for Washington Township High School. First, the results of the study provide a picture of the present classroom practices, as reported by the teachers, within the framework of a traditional schedule. Those teachers who participate in this study by completing a survey may engage in a self-evaluative process and develop a heightened awareness of their teaching methods. Consequently, this may create the motivation to explore and implement new teaching methods. Ultimately, the students would benefit.

Teaching methodology is a significant factor in preparing a staff to implement block scheduling. The study results may reveal the strengths and the weaknesses of the present teaching practices at Washington Township High School and may serve as a reference point in the development of teacher in-service programs. Even if the district decides not to adopt block scheduling, the issue of teaching methodologies can be addressed by supervisors of curriculum and instruction.

Organization of the Study

The remaining chapters of this paper include a review of literature in chapter 2; a description of the design of the study in chapter 3; a presentation of the research findings in chapter 4; and conclusions, implications and the need for further study in chapter 5.

Chapter 2

Review of Literature

As America draws nearer to the new millennium, our society faces many challenges to keep pace with the daily changes occurring in business and industry. Like business and industry, the field of education has been faced with a similar challenge: to prepare students to compete in the high-tech job market of the 21st century. According to Kagan, "Of the 20 million new jobs created in the 1970's, 5 percent were in manufacturing, and almost 90 percent were in information, knowledge, or service. Now more than two-thirds of the work force deals primarily with information and/or other people" (Kagan, 1992).

The rate of new scientific and technical information doubles every two years. These transformations in business and industry have forced companies to continually upgrade their employee training programs and to adopt new strategies and paradigms to remain competitive in the ever growing global economy. Likewise, schools must evaluate the processes traditionally used to deliver curriculum to students. While a myriad of educational reforms have been proposed and implemented in schools across the country in response to private and governmental criticisms of public education, the majority still maintain status quo. The problem as Murphy states it is this: "The schools of the 1990's are the schools of the 1890's with a fresh coat of paint. They are pony express institutions trying to make it in a high-tech world. ... Low standards, too little time, anemic content, and irrelevant tests make for a dull system these days. We cling tightly to arcane structures and practices despite

the fact that American education is choking on mediocrity” (Murphy, 1993). Also regarding this issue, Kagan states, “In view of the very radical shift in the economic and social world in which our students will function, it is frightening to realize that the structure of our classrooms has not changed. We still structure our classes as if our students will work within static and individualistic economic structures” (Kagan, 1992).

The fact is that corporate America has made it quite clear that today’s students are not coming to them prepared with the necessary skills to perform satisfactorily in today’s job market. This fact, and many other educational concerns, were placed in the national limelight in 1984 when the National Commission on Excellence in Education published *A Nation at Risk*. The testimony documented by the Commission in 1984 included many facts related to student achievement. But, the fact that most closely matches the concern of today’s leaders in business and industry is the following: Many 17-year olds do not possess the “higher order” intellectual skills we should expect of them. Nearly 40 percent cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps (National Commission on Excellence in Education, 1983).

Other critics in the 1980’s had similar concerns. Ted Sizer (1993) stated that American high schools placed too much emphasis on memorization and too little on students being active learners. And according to Gerstle and French (1983) almost 60 percent of a student’s classroom time is spent listening to a teacher, while less than one percent is dedicated to problem solving and critical thinking skills. With this in mind, consider the concept of “The Learning Pyramid” which illustrates student retention rates by presentation method

(Appendix A). According to the National Training Laboratories, student retention rates increase as the emphasis of the lesson moves from teacher-centered to student-centered. For example, the lecture method results in approximately five percent retention of information, while students who participate in discussion groups tend to retain 50 percent and hands-on practice by doing activities result in a 75 percent retention of information. Ninety percent information retention occurs when students engage in teaching one another. The “Learning Pyramid” theory supports the following assertion by Kagan that along with the traditional role of providing students with basic skills and information, increasingly schools must produce students capable of higher-level thinking skills, communication skills, and social skills (Kagan, 1992). As students participate in learning activities that require higher-level thinking, their retention rate of the material increases.

While there is no shortage of literature calling for educational reform, there have been few reform movements that have withstood the test of time. Over the past two decades, tremendous time, effort and money have been expended in an attempt to improve our schools. However, most of these reform efforts have concentrated on trying to repair an educational paradigm that is obsolete (Adams & Baily, 1993). The typical high school still operates on an instructional model that was implemented during the Industrial Age with a school calendar that is a relic from the earlier agrarian period (Gainey, 1994). In order to meet the needs of today’s students schools must implement fundamental changes in their expectations, in content taught and in student learning experiences to create a curriculum that is applicable to both the students and world of tomorrow (Cawelti, 1994). Cawelti further contends that school reform should include seven components: Performance Standards,

Authentic Assessment, Interdisciplinary Curriculum, School Based Decision-Making Teams, Block Scheduling, Business/Industry Alliances, and Technology (Cawelti, 1995). This research project focused on the component of block scheduling as a catalyst for educational reform.

As school leaders across the country investigate the literature on educational reform, more and more schools are taking a very close look at block scheduling. In fact, approximately 30 percent of the secondary schools nationwide have adopted some form of block scheduling. While block scheduling should not be viewed as a panacea for all that is criticized in public education, it has proven to be a very successful step in the instructional improvement plans of many schools. Because it is a process with a great variety of options, it should be thoroughly studied. However, it is a change that should not be rushed. Therefore, careful planning and preparation are key ingredients to a successful transition to block scheduling. The literature strongly suggests several crucial steps that must be taken in order to implement change successfully.

David Hottenstein (March, 1999), the principal of Hatboro-Horsham High School, Horsham, PA and author of *Intensive Scheduling: Restructuring America's Secondary Schools Through Time Management*, provides a six step recipe for modifying the secondary school schedule.

Step 1. The organization must believe change for the sake of ongoing school improvement is needed. Organizational goals must be clearly articulated to the students, staff and community. In addition, goals must be measurable and they must be measured. Once data is collected it must be analyzed and reported to the faculty. "In schools that have taken actions to accomplish goals - identified, measured, and reported the results of those

actions - there appears to be more satisfaction and pride than is found in schools where goals are not identified or, if identified, results have not been shared with all partners....and school leaders who measure their progress toward achieving goals have developed a plan for improvement. The use of data as a tool for continuous improvement generally eases the level of anxiety among faculty members and identifies the activity as a worthwhile exercise in the goal setting and measurement process” (Shortt & Thayer, 1997). Therefore, if the goal of block scheduling is to reduce discipline referrals or to increase student-centered learning activities, they should be measured.

Step 2. Involve all the key stakeholders early on in the process of change. This includes faculty, students, administrators and parents. This practice will keep the participants well informed. It will encourage a sense of ownership in the new programs being established and will go a long way to allay the fears that usually accompany change.

Step 3. Select the right schedule for your system. Carefully evaluate what will be affected by the change in schedule. Determine priorities according to what the school wants to accomplish through the new time configuration. Block scheduling has been adopted in schools to achieve various goals, such as, allowing students to take more courses in their high school career, adjusting to higher state standards and graduation requirements, increasing student-centered learning activities, or improving school climate. As the teachers in Huntington Beach, California, found out, instituting a block schedule contributed greatly to a more personalized environment in their school (Shore, 1995).

Step 4. Develop clear expectations for what you expect to improve inside the classroom. The key to success in this area is effective professional development. The opportunity to introduce innovative teaching methodologies

which encourage active student learning, integrating technology, integrated curricula and alternative assessment are some of the possibilities afforded by a block schedule that traditional schedules tend to inhibit. Emilie Leonardi (March, 1998), assistant superintendent of the West York Area School District in York, Pennsylvania, gives logical advice for school districts investigating block scheduling. She believes that it is important to “address structural, curricular and instructional changes concurrently within any educational initiative preparing staff to teach in the longer period will allay the fears of those genuinely concerned about their capacity to adjust to the longer time blocks. These teachers would have sharpened their skills and have a chance to practice within the comfort of the shorter period.” As teachers become more confident with new methodology they will see the advantage of longer blocks of classroom time and become supportive of change rather than resistant to it. Shortt and Thayer (December, 1997) add that “even strong, confident teachers must work hard to maximize the use of time...and that every teacher will need support in understanding the nature of longer instructional blocks and the best way to use them.”

Step 5. Go from theory (your new schedule) to practice (implementation) successfully. The transition from theory to practice should be gradual. A staff development plan that focuses on active learning will address adolescent learning principles, adolescent development, learning styles, and contextual learning. These are not topics that should be covered in an afternoon in-service program (Shortt & Thayer, 1997). The most successful schools have planned and implemented a series of meaningful workshops for teachers to attend over a period of time. Staff development must become a priority in the process of change if it is to be viewed as a mechanism for reaching goals. The principal

must be an instructional leader, and include the faculty in planning staff development as a part of the school's improvement plan. And unless the culture of the school rewards the teachers for change, the teachers will not spend the time and energy to do it (Shortt & Thayer, 1997).

Step 6. Maintain fair and constructive accountability for improved instruction and results. Schools that engage in reform processes must make a commitment to measure change both qualitatively and quantitatively through formal studies. In the case of block scheduling comparisons should be made between data gathered prior to the change to block and after the change. Research strongly suggests that when block scheduling is implemented properly, there can be a positive influence on student discipline, student and staff stress, active student learning, the use of technology in the classroom and academic performance (Hottenstein, 1999).

Adopting a block schedule requires school administrators and their investigative committees to think "out of the box." An advantage of block scheduling is the flexibility it allows. Schools can literally develop a schedule custom made for their students' educational needs. As the nation's workplace changes so to must the educational arena. The challenge faced by today's educators is to prepare student to enter the workforce with sound academic and technological skills, the ability to work in teams in creative and problem solving situations, and effective communication skills. The block scheduling format can enhance a school's ability to deliver curriculum and instruction to active student learners.

As schools embark on the task of planning staff development programs to assist their faculty in the transition from a tradition schedule to a block schedule, the most common concern among teachers, both new and veteran, is how to fill

the class time with meaningful content. It is not as simple as combining two 45-minute lessons into a 90-minute lesson. Instead, teachers should plan three to four changes in methodology throughout the class period, with at least one method being a student-centered activity. Hackmann and Schmitt (April, 1997) offer the following instructional model for teaching in the block. Approximately the first 15 minutes of class should be devoted to *reviewing previous learning*. To assess student mastery of previously taught concepts activities may include checking homework, teacher questioning and student self-assessment in learning pairs. The second stage of a lesson is the *instructional input* stage, 20 to 30 minutes in duration. Strategies used to introduce new concepts may include: direct teaching, demonstrations, multimedia presentations, Socratic Seminars, concept attainment, use of graphic organizers and inquiry methods. This part of the lesson most closely resembles a typical traditional lesson. The third segment of time, 30 to 40 minutes, should be devoted to *student performance*. At this time students engage in student-centered, hands on activities such as; experiments, cooperative learning, role-playing, case studies, and technology enhanced activities. Finally, the last 5 to 15 minutes should center on *guided practice/ reteaching* activities. At this time the teacher should reteach/reinforce the lesson objectives, provide closure, and assign homework.

Hackmann and Schmitt (April, 1997) also outline ten instructional strategies to “assist teachers with developing creative instructional approaches in block classes.” Their article would be a valuable tool for educators as they work to revise curriculum and instruction plans for block classes. Their ten strategies are outlined below.

1. *Continuously engage students in active learning.* The teacher, as a facilitator of learning, designs lessons that require active participation.

Examples of activities are think-pair-share, learning journals, guided notes and active questioning.

2. *Include group activities to encourage student participation.* The more a student is directly involved in a learning strategy the higher the retention rate. Examples are cooperative learning, writing groups, case studies, role playing, and simulations.

3. *Incorporate activities addressing the multiple intelligences.* Incorporate Gardner's (1983) seven categories of human intelligences into lesson.

4. *Use creative thinking activities.* When designing lesson objectives give attention to not only the cognitive domain but also the affective and psychomotor domains.

5. *Move outside the classroom.* Whenever possible use community resources such as guest speakers or field trips to provide real-life application.

6. *Employ authentic forms of assessment.* Out in the "real world" students' work will not be evaluated with a paper and pencil test. As classroom activities become more active and student-center assessment procedures need to be changed to better reflect these activities.

7. *Integrate and reinforce basic skills throughout the curriculum.* Reading, writing and math across the curriculum can incorporate attention to basic skills in all subject areas. Interdisciplinary curriculum projects or thematic units encourage a more in depth understanding of subject matter.

8. *Incorporate technology.* Today's students need to be multimedia literate to make a successful transition from school to work. Student use of technology can include Power Point presentations or Internet research.

9. *Share resources and ideas with colleagues.* Networking with

colleagues, especially during the transition to a block schedule, should be encouraged and supported by administrators. Collaboration and teamwork are emphasized in block scheduled lesson designs for students and are equally important professional practices for teachers.

10. Plan ahead for support activities. Have a stockpile of enrichment activities readily available that supplement lessons or provide a tension break.

The successful transition to block scheduling will depend, to a great extent, on the willingness of the teaching staff to embrace new strategies and teaching methods and the administrative support given the teaching staff. Changing the way time is managed in a school will create a ripple effect to curriculum and instruction that must be addressed if the schedule change is to be effective.

To discuss effectively the value of block scheduling as a change agent in the educational reform movement, the more traditional form of scheduling should also be reviewed and evaluated. The traditional high school schedule as we know it today has its origin in the early 1900's. It was then that the Carnegie Foundation proposed a standard unit to measure high school work based on time. A total of 120 hours in one subject, meeting four or five times a week, for 40 to 60 minutes, for 36 to 40 weeks each year, earns for the student one "unit" of high school credit. The Carnegie Unit became a convenient, mechanical way to measure academic progress throughout the country. And, to this day, in most high schools across the country, this bookkeeping device is the basis on which the school day, and indeed the entire curriculum is organized (Boyer, 1983b). The opponents of traditional scheduling highlight the deficiencies. Canady and Rettig cite six specific problems with the traditional high school schedule.

1. Single-period schedules contribute to the impersonal nature of high schools. As Carroll sees it, “at no other time whether at school or at work, is anyone placed in such an impersonalized, unproductive, frenetic environment” (Carroll, 1990). On a daily basis teachers must deal with the intellectual and emotional needs of an average of 150 students. The view from the students desk is an average of seven different teaching styles, academic expectations and classroom management techniques every day. In addition, students must change work environments and classmates every period as well.

2. Single-period schedules exacerbate discipline problems in high school. During the frequent transition time between class periods, when students are less supervised, is when many if not most problems occur in schools. It is also more likely that this impersonal environment inhibits the development of positive rapports between students and teachers, therefore, increasing the potential for disrespectful and explosive situations.

3. Single-period schedules and increased graduation requirements have cut the “time pie” very thinly. Adding class periods without increasing the time of the school day has lead to a hectic and fragmented school day for both teachers and students.

4. Single-period high school schedules limit instructional possibilities for teachers. As teachers are exposed to new and innovative teaching methods, such as cooperative learning, they find the traditional schedule more and more restrictive. Trying to implement creative teaching techniques, such as simulations, synectics, concept development, concept attainment, role-playing and inquiry, is difficult in short blocks of time (Gunter, Estes, & Schwab, 1990).

5. Single-period schedules do not permit flexible time for teaching and learning. The National Education Commission on Time and Learning

published a report titled, "Prisoners of Time." In it is the following observation: "High-ability students are forced to spend more time than they need on a curriculum developed for students of moderate ability Struggling students are forced to move with the class and receive less time than they need to master the material....(Average) students get caught in the time trap as well. Conscientious teachers discover that the effort to motivate the most capable and help those in difficulty rob them of the time for the rest of the class (National Education Commission on Time and Learning, 1994).

6. Single-period schedules do not result in user-friendly workplaces for teachers. The often chaotic environment induced by the typical high school schedule places students and teachers on a treadmill that is counter-productive. The ability to prepare challenging lessons, fairly and adequately assess student progress, meet the intellectual and emotional needs of students and address the increasing diversity of the student body is greatly compromised with the traditional structure of high schools (Canady & Rettig, 1995). "We live in a very different world now, and we know immeasurably more about how students learn (Irmsher, 1996). American high schools need to examine the problems inherent in the traditional scheduling pattern and the benefits of a more flexible schedule that promises to provide "a better match for pedagogical practices that meet the educational needs of students and the professional needs of teachers" (Irmsher, 1996). One such innovation that is being heavily investigated and implemented by schools across the nation is block scheduling.

Block scheduling is defined by Gordon Cawelti as follows: "At least part of the daily schedule is organized into larger blocks of time (more than 60 minutes) to allow flexibility for a diversity of instructional activities." There are many varieties of block scheduling but all share the basic goal of allowing

Table 1 - Types of Block Scheduling	
Alternate Day Block Schedule	Also referred to as a "Day 1, Day 2" or an "A Day, B Day" schedule. May be adapted by schools that offer six, seven or eight period days. When students take six or eight courses half of the classes meet in double instructional blocks one day, while the other half meet in double blocks the next day. In seven-period school, six courses meet in double blocks every other day, one course, called a singleton, meets daily in the traditional single-period format.
The 4/4 Semester Plan	The school day is divided into four instructional blocks of approximately 90 minutes each, and the school year is divided into two semesters. Students enroll in four courses which meet daily. Instruction is compressed into one semester of double-block periods. At the end of the fall semester, students receive credit for each course successfully completed and enroll in four new courses for the spring semester.
The Quarter-On/ Quarter-Off Plan	Students enroll in four courses which meet in double-periods for 45 days or one quarter. During the second quarter students may enroll in four different courses and complete the first half of each of these courses. In the third quarter students continue and/or complete classes 1 through 4, and in the fourth quarter they complete courses 5 through 8.
The Trimester Plan	Students enroll in two classes every 60 days. One class meets in the morning and then, after a lunch period, the second class meets in the afternoon. A variation of this plan includes a mix of year-long courses and trimester block courses.
Intensive Scheduling	Students enroll in one core course every 45 days providing concentrated study in one core course at a time. Foreign language, the arts and music courses are year-long courses.

schools to adopt flexible programs to meet the diverse needs of their students. Table 1 identifies a variety of scheduling configurations presented by Canady and Rettig (1995). Their text, *Block Scheduling: A Catalyst for change in High Schools*, is a comprehensive study of block scheduling. In addition to critiquing traditional scheduling and reviewing a variety of block scheduling options the authors devote a chapter to "Teaching in the Block," an in depth outline of innovative teaching methodology and a design for a ten day staff development plan.

Since some form of block scheduling has been implemented in many states throughout the country and Canada there is a considerable amount of

literature to review. Patricia Davis-Wiley conducted a survey of teachers and administrators in two large eastern Tennessee high schools after their adoption of a 4/4 block scheduling plan. Information was also gathered through the interview process. The two main effects that teachers reported were an increase in preparation time and an opportunity to use a wider variety of teaching methods. Administrators and teachers were in favor of remaining on the block schedule (Davis-Wiley, 1995).

In a study of block scheduling in Virginia, Clarence M. Edwards, Jr. reported that 93 percent of the students and 94 percent of the teachers favored block scheduling over traditional scheduling. The rate of students earning A's jumped from 21 to 28 percent in the first year, however, achievement test scores did not change (Edwards, 1995).

Richard Fletcher explored the effects of block scheduling by surveying 280 teachers and approximately 2000 students from six high schools in Middle Tennessee. Both students and teachers reported that school climate had improved as well as the grades of thirty percent of the sample. Both groups felt there had been an increase in paperwork and the teachers generally agreed that a revision of teaching methods was necessary. There was no significant effect on attendance. This source contains a copy of the survey instrument (Fletcher, Richard K., 1997).

Donald Hackmann conducted a study of the effects of block scheduling on the school climate in a middle school. He collected data during the last year of traditional scheduling and then again during the first year of block

scheduling. His findings showed a 57.9 percent reduction of disciplinary referrals, a 60.1 percent decrease in in-school suspensions, a 62 percent decrease in out-of-school suspensions, and an increase in attendance. In addition, failing grades decreased and honor roll students increased. The student approval rate for block scheduling was 73.8 percent (Hackmann, 1995).

A. Leroy Huff reported on the positive response to block scheduling in a Missouri high school where 96 percent of the teachers and 79 percent of the students were in favor of block scheduling over the traditional schedule (Huff, 1995).

David M Mutter detailed the advantages and disadvantages of the 4/4 block scheduling model in a Virginia high school. According to her data, obtained through survey results, grades, attendance and discipline all improved. Most participants were in favor of the block scheduling plan, however, several problem areas were identified, specifically accommodating advanced placement and music classes (Mutter, Davida, 1997).

John Pisapia and Amy Lynn Westfall produced several studies for the Metropolitan Educational Research Consortium (MERC) in Richmond, Virginia. One study focused on the perceptions of 2,430 students in 13 schools (4 inner city, 5 suburban, 4 rural). Six forms of scheduling were reviewed including two traditional and six types of block scheduling. Students attending schools using the 4/4 semester block reported the highest satisfaction with course selection options and that their teachers used a greater variety of teaching methods. There was no significant difference reported for homework, student-teacher relationships, curriculum and student satisfaction. A copy of the survey instrument is included in this document (Pisapia and Westfall, 1997a). In a parallel study by the same authors in the same schools the teachers'

perceptions were also studied. The 4/4 semester block schedule received the most favorable rating. These teachers reported a significantly better attendance rate, a change in instructional methods to more student-centered activities, and a greater satisfaction with student achievement and grades. A copy of the survey instrument is included in this document (Pisapia and Westfall, 1997b).

Louann Reid investigated the effects of block scheduling on the teaching of English. She found that 90 percent of the teachers in her sample were in favor of block scheduling. The academic area of writing showed the most positive results (Reid, 1995).

Robert Schoenstein completed a five year study of block scheduling in a Colorado high school. The results of his report indicate an increase in attendance from 91.7 to 93.9 percent, and an increase in honor roll students from 20.8 to 26.5 percent over the five year period (Schoenstein, 1995).

Sol Sigurdson provides a Canadian perspective to block scheduling. "The students in the Block Plan showed better attitudes toward schooling than did the control group and their class showed higher gains in all achievement areas than did the control group, while average and better students in the treatment group did less well than the control group in language classes. While this attitude change was indicated by the total population, the bottom 35 percent of students seemed to be affected the most. The improved attitude seemed to stem from an improved relationship with the teachers, especially in the second year....Teacher satisfaction in the Block Plan was very high" (Sigurdson, 1982).

Gary Scroggins and PJ Karr-Kidwell have developed a valuable document for any school system contemplating a move to block scheduling. In addition to an extensive literature review they include a handbook for implementing block scheduling. The handbook includes strategies for building

support among the students, staff and community as well as a time line for preparation and implementation of block scheduling (Scroggins and Karr-Kidwell, 1995).

Many studies have been conducted to determine the attitudes of teachers and students after changing to block scheduling. Jim Staunton (December, 1997) completed a survey study at Huntington Beach High School in California. He reported his findings in four categories. In the area of instructional practices this study found that teachers believed that they were better able and more willing to use a variety of instructional methods such as, small group activities and cooperative learning strategies. Another category, assessment techniques, reveals that teachers are more likely to use alternative forms of assessing student progress in the block format. Social interaction improved as a result of the block schedule. Teachers reported feeling less stressed and also believed that their students were less stressed. There was strong agreement that block scheduling increased personalization in the school. Regarding curriculum, teachers reported that they were able to cover material in greater detail while on a block schedule, however, they also reported that they covered fewer units. In spite of this the teachers felt that students were getting enough exposure to the subject material. Schoolwide management was another category for this study. The teachers generally agreed that school climate had been positively influenced and that there were fewer discipline concerns outside the classroom. Teachers in the Huntington Beach study reported that they were adequately prepared with staff development programs. The level of satisfaction with block scheduling also increased significantly with more years of experience on a block schedule.

Staunton and Adams (December, 1997) conducted another study of

California teachers' attitudes toward block scheduling. In this study, teachers were asked to respond to 50 questions regarding the efficacy of block scheduling. Of the 150 questionnaires distributed, 106 (70 percent) were returned. There were three categories of questions. On the topic of teaching strategies teachers responded that a block schedule encouraged them to: plan more hands-on investigative activities, cover topics with greater depth, plan more group work, improve student/teacher interactions, conduct more meaningful discussions, check for individual learning more effectively, use more performance based projects for alternative assessment, and include lessons that address a variety of learning styles. A teacher of "at risk" students responded that block scheduling allows the use of real world situations to gather data and then work with a group to analyze and formulate solutions. She emphasized the enthusiasm generated by these student-centered activities. It was noted, however, that organization was the key to successful planning to avoid down time.

The perceived level of stress is also affected by block scheduling. Most respondents reported that they were less stressed for any of the following reasons: the ability to complete lessons, knowing their students better, working at a pace more conducive to learning, having fewer student contacts and classes per day, less paperwork, and being able to clarify or correct misconceptions about subject matter without feeling like you're getting behind or putting it off until tomorrow. On the negative side one teacher did respond that "less stress does not mean better education."

In this report teachers shared their personal beliefs about teaching in general. There was a great concern for continuity and most teachers felt it is necessary to see their students everyday. Many felt that a block schedule is a

great format for lab oriented classes. Most agreed that problems arise when either the teacher or students are absent due to providing appropriate sub plans and managing make-up work. Finally, those teachers who teach subjects with vertical articulation were concerned about not being able to cover enough material to prepare students for the next level. For the most part, responses were favorable toward block scheduling and comfort levels improved as teachers gained more experience in the model.

J. Casey Hurley , an associate professor at Western Carolina University, conducted a study of the 4 x 4 block schedule format at five North Carolina high schools. Data was gathered using the interview method. Both teachers and students were interviewed. The results of the interviews were reported according to advantages and disadvantages (December, 1997a). The majority of the 31 teachers interviewed favored the block schedule citing improvements in working conditions such as, having fewer students, more planning time, fewer class preparations, and a more relaxed daily schedule. Teachers also reported program enrichment by implementing a greater variety of teaching methods per class, larger units of study, more skill development activities, and more hands-on activities. Another advantage expressed by some teachers was the positive influence that block scheduling had on teacher/students relationships due to an increased opportunity for one-on-one time. Still others felt that it allowed them to raise their expectations for student performance which resulted in greater student achievement. Teachers of elective classes reported an increase in enrollment due to the increased number of courses students can take during their four years in high school. In addition, students and teachers could focus more intensely on fewer classes at a time.

The students who were interviewed from the five schools overwhelmingly

favored block scheduling over traditional scheduling with 95 percent saying that they would not go back to a seven period day if they were given the choice. Academic advantages cited by the students include: better grades, more time for in-depth study of subjects, more individual attention from their teachers, less school related stress, and a chance for a fresh start each semester. In addition, co-curricular activity participation can increase with a block schedule if the schedule has a built in club meeting time during the school day. Early graduation was also cited as an advantage by many students, however, this sentiment was not necessarily shared by the educators. Consequently, many schools that choose to implement a block schedule also increase graduation requirements.

When asked to identify disadvantages of block scheduling teachers listed concerns over homework, students' uneven course loads, and loss of student participation in subject specific co-curricular clubs such as, a foreign language club, when students are not in that course. Students identified the following disadvantages: classes are too long if teachers rely too heavily on the lecture method; uneven schedules make one semester too difficult and the next semester too easy; teachers may try to cover too much material in a short amount of time in classes that have an exit test; absences are hard to make-up; there are more frequent tests; and early graduates miss out on spring sports.

Based on the data of the North Carolina study Hurley (December, 1997) recommends that schools contemplating a change to block scheduling consider the following philosophical questions:

What is the position of the school and community regarding:

-Homework in vocational, academic, and enrichment subjects?

-The need for teachers to cover material that may be on end-of-course

tests?

- Course enrichment activities?
- The purpose of the high school senior year?
- The purpose of co-curricular activities?

Although the concept of block scheduling as an educational reform has its opponents, the majority of the literature reviewed provided a positive perspective. It is clear that a traditional schedule inhibits the implementation of new, innovative ideas in the classroom. Adopting a block schedule, if implemented properly, is one way that schools may successfully make the transition into the 21st century and prepare their students to become lifelong learners.

Chapter 3

The Design of the Study

The Research Design

The purpose of this study is to investigate the classroom behaviors and practices of high school teachers both in a traditionally scheduled school and in a block scheduled school. The many proponents of block scheduling claim that the extended periods of class time allow teachers to use a greater variety of teaching methods, many of which are student-centered. Because of the emphasis on student-centered learning activities, there is also a belief that students retain more information than those who experience more traditional teaching methods, such as, lecture. Another assertion of block scheduling proponents is that topics can be covered in greater depth, thus requiring the use of higher level thinking skills. The intern expects the results of this study to show that teachers in the traditionally scheduled school used a higher percentage of whole class instruction than the teachers in the block scheduled school, therefore, failing to reap the benefits of student-centered activities. The intern also expects to find that the teachers in the traditionally scheduled school have less opportunity for individual student instruction. Finally, The intern expects to find that the teachers in the block schedule school have a higher degree of satisfaction with student achievement, student attendance and teacher workload than the teachers in the traditional schedule. The results of the study delineate those teaching practices most common to each type of schedule in the respective schools.

The intern was motivated to conduct this study because for the past several years she has been a member of the Washington Township High School block scheduling committee. The impetus for this study was a natural outgrowth of the investigative process of the committee. Since the initiation of the investigation, many groups, including administrators, teachers, students, parents and board of education members, have visited block scheduled schools throughout New Jersey, Pennsylvania and Maryland. This only allowed our group to observe other schools' programs. The survey study, however, allowed the intern to compare the teaching practices of her school's staff, under a traditional schedule, to another high school staff, using a block schedule. The data collected will provide additional information for the decision-making process underway in Washington Township High School.

The Development and Design of the Research Instrument

The survey instrument used for this study was adapted from a survey instrument developed by the Metropolitan Educational Research Consortium of Richmond, Virginia. The survey collected data about the perceptions of teachers about classroom practices and behaviors, levels of teacher satisfaction with the school schedule and teacher perceptions of student performance/behavior. The survey has four sections. Section 1 consists of 22 items regarding classroom processes and practices. Section 2 consists of 16 items regarding the teachers' satisfaction with teaching processes and classroom activities and student performance/behavior. Responses to these first two sections of the survey use a Likert scale. The response options are numbered from 1 to 5 with 1 indicating Always, 2 indicating Most of the Time, 3 indicating Some of the Time, 4 indicating Seldom, and 5 indicating Never. An additional response option is 8, indicating Don't Know, for respondents who

might not have enough information to respond to an item. Section 3 consists of six items related to the current class schedule at the respondents' high school. Section 4 consists of 13 items related to demographic information. Sections 3 and 4 use a forced choice response method. The Teacher Survey can be found in Appendix B of this report.

The Sample and Sampling Techniques

Data for this study was collected at Washington Township High School in Sewell, New Jersey and at Upper Darby High School in Upper Darby, Pennsylvania. These schools were chosen for the study for two reasons. First, the researcher is employed at Washington Township High School and is a member of the block scheduling committee of the school. Second, Upper Darby High School is one of a very few high schools in the Delaware Valley area that is comparable in size to Washington Township High School and using a block schedule.

Data Collection

Data was collected by surveying a sample of the teaching population at both high schools. A stratified random sampling method was used to distribute the surveys to the teachers. One hundred surveys were distributed in each school by placing surveys in teachers' mailboxes in mid-November and again in mid-December. In Washington Township High School the respondents were instructed by a cover letter to return completed surveys to the researcher's mailbox. In Upper Darby High School the respondents were instructed by a cover letter to return completed surveys to Mrs. Maury Pries, the English Department Chairman. Every effort was made to maintain consistency in distribution and collection methods in each school.

Data Analysis

In all analyses, the number of respondents who did not answer a particular item and who answered “don’t know” were eliminated from calculation. The analyses were conducted from the responses of those who responded by circling one of the other five response options on the survey.

The results of the survey were compiled manually and appear in tabular form. The tables allow for comparison of responses from Washington Township High School teachers to Upper Darby High School teachers. For sections 1 and 2 the respondents were asked to rate each item using a Likert scale of one to five (1 = always to 5 = never). An overall mean was computed for each item. Each item was also analyzed according to the percentage of responses on the Likert scale. These results appear in Appendix C. A second method of analysis used the same Likert scale rating system but simplified the responses into three categories. Responses of 1 or 2 were identified as high frequency, the response of 3 was identified as average frequency, and responses of 4 or 5 were identified as low frequency. Sections 3 and 4 were analyzed according to the percentage of responses to the forced choice questions for each school.

As mentioned above, the primary purpose of this study was to compare the teaching behaviors and practices in two high schools based on the influence of the class schedule, either block scheduling or traditional scheduling. The analysis of the data reveals the frequency at which various teaching practices occur and the level of satisfaction experienced by the teachers in their particular schools. This study is a form of action research. The results provide information that may be used in the educational decision-making process at Washington Township High School.

Chapter 4

Presentation of the Research Findings

This chapter presents an analysis of the data obtained from a survey of the Washington Township High School teachers and the Upper Darby High School teachers, to determine teaching practices and behaviors. The data were used to compare the teaching practices and behaviors in a traditionally scheduled school (Washington Township High School) to the teaching practices and behaviors in a 4/4 semester block scheduled school (Upper Darby High School). In November, 1999 a survey was distributed to 100 teachers at Washington Township High School. One hundred surveys were also distributed to teachers at Upper Darby High School. A stratified random sampling methods was used. A total of 47 surveys were returned by the Washington Township staff. This represents 47% of the sample population, and 21% of the total teacher population. A total of 54 surveys were returned by the Upper Darby staff. This represents 54% of the sample population, and 27% of the total teacher population. Table 2 gives a breakdown by population.

	Total Population	Sample Population	Surveys Returned	Percent of Total Population
Washington Township High School	224	100	47	21%
Upper Darby High School	201	100	54	27%

Scoring of the Data

The data were obtained and compiled manually from the 101 surveys returned by the Washington Township High School teachers and the Upper Darby High School teachers. The survey had four sections. In Section 1 respondents were asked to rate 22 items related to classroom processes and practices using a likert scale. In Section 2 respondents were asked to rate 16 items related to satisfaction with teaching processes and classroom activities using a likert scale. The scale ranged as follows: 1-always, 2-most of the time, 3-some of the time, 4-seldom, 5-never, and 8-don't know. Responses that were answered with 8-don't know were eliminated from the analysis. Several methods were used to analyze the responses to the items in sections 1 and 2. First, the percentage of respondents for each category for each item was calculated. Then, an individual mean score was determined for each item. These results appear in Tables 11 and 12 in Appendix E. The second method of analysis used the same rating scale (1-always to 5-never). These ratings were simplified into three levels and titled frequency of occurrence. Responses of *always* and *most of the time* were combined and labeled as a high frequency of occurrence. The response of *some of the time* was labeled as an average frequency of occurrence. Responses of *seldom* and *never* were combined and labeled as a low frequency of occurrence. Finally, the items in section 1 and section 2 were grouped in the following five categories: teaching practices (Table 3), teacher/student attitude/interest (Table 4), instructional materials and assessment (Table 5), professional practices (Table 6), and teacher satisfaction (Table 7). The tables show a comparison of the results from the respondents from Washington Township High School (WTHS), to the results from the respondents from Upper Darby High School (UDHS).

Section 3 of the survey refers to the respondents' attitude toward the current class schedule at their school. The results of these six forced response items are reported according to the percentage of responses from both WTHS and UDHS, and a mean score was calculated for each item. These results appear in Table 8.

Section 4 of the survey gathered information for the following thirteen demographic items: gender, age, level of education, work status, years teaching, years teaching in present school, teaching area, teaching periods per day, number of preparations, class size, AP classes taught, honors classes taught, and transfer success rate. These results are reported for both WTHS and UDHS in percentage form in Tables 9, 10 and 11.

Analysis of Data

Seven items from section 1 of the survey were grouped and labeled as teaching practices. These items referred to the frequency of occurrence of a variety of teaching methods, as well as the use of class time to complete homework and the ability to cover necessary material in the time provided. The results appear in Table 3. When comparing the data for Washington Township High School to the data for Upper Darby High School, the most significant differences occur in items 2 and 5. Item 2 refers to the distribution of time among whole class instruction, small group work, and individual study. Sixty-four percent of the WTHS respondents report that they vary their instructional methodology most of the time or always, compared to 73% of the UDHS respondents. Item 5 refers to the respondents' ability to cover material in the amount of time provided. Sixty-six percent of the WTHS respondents rated this item high compared to 86% of the respondents from UDHS. However, if the high and average scores are combined for both schools, they are even at 92%.

Table 3 - Teaching Practices				
		Frequency of Occurrence		
		High	Average	Low
Teaching Practices				
I use group activities in my classes.	WTHS UDHS	29% 33%	65% 61%	6% 6%
In my classes, time is distributed among whole class instruction, small group work, and individual study.	WTHS UDHS	64% 73%	26% 25%	10% 2%
Most class time is spent in whole class instruction.	WTHS UDHS	29% 22%	37% 33%	34% 45%
I work with my students in individual study.	WTHS UDHS	16% 10%	50% 58%	34% 32%
I am able to cover material for my classes in the amount of time provided.	WTHS UDHS	66% 86%	26% 6%	8% 8%
My students are able to complete their homework in school.	WTHS UDHS	13% 10%	45% 29%	42% 61%
I use whole class lecture in my classes.	WTHS UDHS	13% 15%	64% 57%	23% 28%

Three items from section 1 of the survey were grouped and labeled as teacher/student attitude/interest. These results appear in Table 4. The first two items refer to student attentiveness and interest in class. The majority of respondents from both schools reported having this problem at least some of the time. The third item in this category deals with the teacher's enthusiasm about his/her school. In this question, the high and low categories both have significant scores. In the high category 98% of the UDHS respondents said they were enthusiastic about their school, compared to 71% of the WTHS respondents. The other significant factor for this item is the fact that no respondents from either school reported a total lack of enthusiasm.

Table 4 - Teacher/Student Attitude/Interest				
		Frequency of Occurrence		
		High	Average	Low
Teacher/Student Attitude/Interest				
I experience problems with student attentiveness in my classes.	WTHS	11%	57%	32%
	UDHS	15%	47%	38%
I experience problems with student interest in my classes.	WTHS	4%	57%	39%
	UDHS	9%	50%	41%
I am enthusiastic about my school.	WTHS	71%	19%	0
	UDHS	98%	2%	0

Seven items from section 1 of the survey were grouped and labeled as instructional materials and assessment. The results appear in Table 5. The items related to instructional materials report the level of reliance on textbooks as a primary instructional tool. Less than 25% of the respondents from both WTHS and UDHS reported a high reliance on textbooks, while 68% of the UDHS respondents and 76% of the WTHS respondents reported a high use of other instructional materials. In terms of assessing student performance, the survey asks about the frequency of use of essay questions, multiple choice questions, and true-false questions. A significantly higher percentage of respondents from UDHS use essay questions at a high frequency (31%), as compared to 13% of the WTHS respondents. Less than a third of the respondents from both schools report a high usage of multiple choice and true-false questions on tests. The majority of respondents from both schools report a low usage of portfolios to assess their student's progress. Finally, there is a significant difference in the reported usage of rubrics to score student assignments. Over 50% of the WTHS respondents report a high frequency of

rubric use, while only 37% of the UDHS respondents report a high frequency of rubric use.

Table 5 - Instructional Materials and Assessment				
		Frequency of Occurrence		
		High	Average	Low
Instructional Materials and Assessment				
I use textbooks as a primary instructional tool.	WTHS UDHS	23% 24%	36% 48%	41% 28%
I use a variety of instructional materials other than textbooks in my classes.	WTHS UDHS	76% 68%	20% 30%	4% 2%
I use worksheets in my classes.	WTHS UDHS	42% 29%	43% 61%	15% 10%
I use portfolios to assess my students' performance.	WTHS UDHS	22% 19%	13% 24%	65% 57%
I use essay questions to assess my students' performance.	WTHS UDHS	13% 31%	56% 43%	31% 26%
I use multiple choice and true-false questions to assess my students' performance.	WTHS UDHS	22% 30%	61% 53%	30% 17%
I use rubrics for scoring student assignments.	WTHS UDHS	53% 37%	23% 46%	24% 17%

Five items from section 1 of the survey were grouped and labeled as professional practices. These results appear in Table 6. These items reflect the degree to which teachers work cooperatively with colleagues to improve instruction. The items also reflect the respondents' attitude toward in-service programs provided by their schools and their non-instructional use of technology. Team teaching and integrated instruction occur fairly infrequently in both schools, although slightly more than a third of the respondents from both WTHS and UDHS report a high frequency of informal networking to exchange

ideas and resources among the teachers at their schools. Over 50% of the UDHS respondents report that school in-service programs are highly effective, while only 20% of the WTHS respondents felt this way. Finally, over 50% of the respondents from both schools report a high usage of technology for non-instructional tasks.

Table 6 - Professional Practices				
		Frequency of Occurrence		
		High	Average	Low
Professional Practices				
The in-service workshops provided by my school are helpful.	WTHS	20%	44%	36%
	UDHS	51%	39%	10%
Teachers at my school form informal support/discussion groups to exchange ideas and resources.	WTHS	39%	36%	25%
	UDHS	36%	43%	21%
Teachers at my school take a team approach to teaching.	WTHS	13%	42%	45%
	UDHS	18%	60%	22%
Teachers at my school work to integrate instruction across subject areas.	WTHS	8%	33%	59%
	UDHS	11%	43%	46%
I use learning technologies for developing instructional materials, lesson plans and/or grading.	WTHS	60%	24%	16%
	UDHS	56%	40%	4%

Section 2 of the survey deals with teacher satisfaction with teaching practices and processes. The results can be reviewed in Table 7. Overall, for all of the items in this section, the level of satisfaction reported by the respondents of both WTHS and UDHS was high. However, six items showed a significant difference of ten or more percentage points in the high frequency category. Five out of the six items favored UDHS, where block scheduling is used. These item include satisfaction that students can apply what they have learned, satisfaction with the completion of student work, satisfaction with

students' attitude, satisfaction with the amount of preparation time, and satisfaction with the amount of interaction with colleagues. Among these five items the greatest discrepancy occurs with the reported satisfaction with preparation time. Fifty-two percent of the UDHS respondents report high satisfaction with the amount of preparation time, while only 19% of the WTHS respondents reported high satisfaction in this area. The only item in this section that strongly favored the WTHS respondents had to do with the satisfaction with the quality of relationships with students. Ninety-three percent of WTHS respondents report high satisfaction with their relationships with their students.

In section 3 of the survey, six items relate to the respondents' attitude toward the current class schedule in their school. Washington Township High School uses a traditional 8 period schedule of 45 minute classes. Upper Darby High School uses a 4/4 semester block schedule of 85 minute classes. The results of this section appear in Table 8.

Two items refer to the traditional eight period day with 45 minute classes. Forty-three percent of the WTHS respondents agree or strongly agree with the eight period day, while 54% of the UDHS respondents disagree or strongly disagree with the benefits of an eight period day. Thirty-six percent of the WTHS respondents agree or strongly agree that 45 minute classes are beneficial to quality education, while 43% of the UDHS respondents disagree or strongly disagree. When asked whether alternative schedules are beneficial to quality education, 69% of the WTHS respondents and 85% of the UDHS respondents agree or strongly agree. When respondents were asked whether they liked the daily class schedule at their school, 45% of the WTHS respondents agree or strongly agree, while 83% of the UDHS respondents agree or strongly agree. The majority of both groups of respondents rate their teaching

Table 7 - Teacher Satisfaction				
		Frequency of Occurrence		
		High	Average	Low
My general attitude toward my school is positive.	WTHS UDHS	85% 96%	13% 4%	2% 0
Generally, I am satisfied with the size of my classes.	WTHS UDHS	66% 69%	25% 11%	9% 19%
Generally, I am satisfied with the level of academic challenge I provide my students.	WTHS UDHS	73% 83%	19% 15%	4% 2%
Generally, I am satisfied with my effectiveness as a teacher.	WTHS UDHS	89% 87%	9% 13%	2% 0
Generally, my teaching methods are the same as they have always been.	WTHS UDHS	13% 22%	62% 58%	25% 20%
Generally, I am satisfied with my students' achievement this year.	WTHS UDHS	58% 68%	29% 27%	13% 7%
Generally, I am satisfied with the depth of coverage of material in my classes.	WTHS UDHS	69% 66%	17% 26%	14% 8%
Generally, I am satisfied that my students can apply what they have learned.	WTHS UDHS	63% 77%	30% 21%	7% 2%
Generally, my students are mastering important concepts.	WTHS UDHS	76% 74%	22% 24%	2% 2%
Generally, I am satisfied with the completion rate of my students' work.	WTHS UDHS	49% 68%	45% 25%	6% 7%
In general, my students' attitudes toward school are positive.	WTHS UDHS	47% 61%	46% 30%	7% 9%
Generally, my students are gaining an in-depth understanding of the subject matter.	WTHS UDHS	57% 63%	34% 26%	9% 11%
Generally, I am satisfied with the quality of my relationships with my students.	WTHS UDHS	93% 79%	7% 19%	0 2%
Generally, I am satisfied with the amount of time I have for lesson planning, correcting and grading.	WTHS UDHS	19% 52%	19% 35%	62% 13%
Generally, I am satisfied with the amount of interaction I have with my colleagues.	WTHS UDHS	34% 48%	38% 33%	28% 19%
Generally, I am able to cover the approved curriculum in my classes.	WTHS UDHS	72% 83%	15% 9%	13% 8%

experience under the current teaching schedule as good or excellent, 83% at WTHS and 91% at UDHS. Finally, when respondents were asked if they would like to remain in the current schedule, 21% of the WTHS respondents said they would compared to 65% of the UDHS respondents. Thirty-two percent of the WTHS respondents reported that they would like to teach under a different schedule and 43% remain undecided.

Table 8				
Attitude Toward Current Class Schedule				
When compared to other schedules, the traditional 8 period school day provides the best opportunity for learning.			I like the current daily schedule of classes at my school.	
	WTHS	UDHS		
Strongly agree	2%	4%	Strongly agree	9% 37%
Agree	41%	22%	Agree	36% 46%
Neutral	33%	20%	Neutral	32% 4%
Disagree	22%	41%	Disagree	21% 9%
Strongly disagree	2%	13%	Strongly disagree	2% 4%
Mean Score	2.80	3.37	Mean Score	2.72 1.96
The traditional format of approximately 45 minute classes over approximately 180 days is beneficial to quality education.			Overall, I would rate my experience of teaching under the current schedule as	
	WTHS	UDHS		
Strongly agree	2%	9%	Excellent	17% 28%
Agree	34%	22%	Good	66% 63%
Neutral	32%	26%	Fair	11% 7%
Disagree	30%	30%	Poor	2% 2%
Strongly disagree	2%	13%	Terrible	4% 0
Mean Score	2.96	3.15	Mean Score	2.11 1.83
There are alternative schedules that are beneficial to quality education.			Considering all your impressions about the current schedule at you high school, select a response.	
	WTHS	UDHS		
Strongly agree	7%	26%		
Agree	62%	59%	I would like to remain in the current schedule.	21% 65%
Neutral	29%	13%	I would like to teach under a different schedule.	32% 28%
Disagree	2%	0	I have no opinion.	4% 0
Strongly disagree	0	2%	I am undecided.	43% 7%
Mean Score	2.27	1.93	Mean Score	2.68 1.50

The fourth and last section of the survey reports demographic information for both Washington Township High School and Upper Darby High School. The full results can be seen in Tables 9, 10 and 11. The largest percentage of respondents for both schools were female, age 40 to 49, working full time, with more than 20 years of teaching experience. The level of education attained by the respondents at each school is almost exactly opposite. At WTHS 60% of the respondents have a bachelor's degree and 28% have a master's degree, while at UDHS 28% of the respondents have a bachelor's degree and 63% have a master's degree. The respondents from both schools represent all of the teaching areas except drama and music, where there were no respondents from either school. Seventy-six percent of the UDHS respondents report teaching 3 to 4 periods per day, while the WTHS respondents report teaching 5 to 6 periods per day. The majority of respondents in both groups have two preparations. WTHS tends to have slightly lower class sizes, with 34% reporting 21 to 25 students per class. In comparison, 41% of the UDHS respondents report class sizes of 26 to 30 students and another 15% report class sizes of 31 or more students. The overwhelming majority of respondents from both schools report teaching no AP or honors classes. Finally, the UDHS respondents report a higher percent of success with transfer students.

Discussion of Findings

To obtain the data for this study, a survey was distributed to a stratified random sample of the teaching staff at both Washington Township High School and Upper Darby High School. The results of the survey represent the attitudes and beliefs of 21% of the total teaching population at Washington Township and 27% of the total teaching population at Upper Darby.

In analyzing the data, the intern expected to find that the teachers in the

Table 9			
Demographics - Section 4			
		WTHS	UDHS
Gender	Male	23%	39%
	Female	77%	61%
Age	20 -29	15%	22%
	30 -39	23%	15%
	40 -49	30%	37%
	50 -59	28%	26%
	60 +	4%	0
Level of Education	Bachelor's Degree	60%	28%
	Master's Degree	28%	63%
	Doctorate	2%	2%
	Other	10%	7%
Work Status	Full Time	94%	100%
	Part Time	6%	0
Years Teaching	Less than 1 year	2%	0
	1 -2 years	4%	6%
	3 - 5 years	15%	19%
	6 -10 years	21%	9%
	11-15 years	11%	13%
	16 - 20 years	19%	19%
	More than 20 years	28%	34%

Table 10			
Demographics - Section 4			
		WTHS	UDHS
Years Teaching in Present School	Less than 1 year	2%	0
	1 -2 years	13%	7%
	3 - 5 years	21%	27%
	6 - 10 years	17%	19%
	11 - 15 years	19%	15%
	16 - 20 years	11%	15%
	More than 20 years	17%	17%
Teaching Area	Art	4%	5%
	Business/Computer Education	4%	9%
	Driver Education	2%	0
	English/Language Arts/Reading	17%	19%
	Drama	0	0
	Family/Consumer Sciences	4%	4%
	Foreign Language	15%	12%
	Health/Physical Education	9%	9%
	Mathematics	15%	14%
	Music	0	0
	Science	11%	9%
	Social Studies	6%	11%
	Special Education	9%	4%
Technology Education	4%	4%	

Table 11 Demographics -Section 4			
		WTHS	UDHS
Teaching Periods Per Day	1 - 2	0	17%
	3 - 4	13%	76%
	5 - 6	87%	7%
Number of Preparations	1	26%	32%
	2	40%	41%
	3	28%	20%
	4 or more	6%	7%
Class Size	5 - 10	13%	2%
	11 - 15	2%	4%
	16 - 20	21%	9%
	21 -25	34%	29%
	26 - 30	26%	41%
	31 or more	4%	15%
AP Classes	None	94%	93%
	1	6%	7%
Honors Classes	None	81%	76%
	1 - 2	15%	24%
	3 or more	4%	0
Transfer Success Rate	Extremely Successful	17%	24%
	Somewhat Successful	38%	50%
	Not Very Successful	4%	9%
	Extremely Unsuccessful	0	0
	No Transfers	41%	17%

traditionally scheduled school used a higher percentage of whole class instruction than the teachers in the block scheduled school. The intern also expected to find that the teachers in the block scheduled school used a greater variety of teaching methods throughout a class period, such as, small group activities and higher level thinking activities, than teachers in the traditionally scheduled school. The analysis of the survey data does not support the above hypotheses. In fact, there is very little difference between the reported teaching practices of each staff. Approximately one third of the respondents from both WTHS and UDHS reported using group activities at a high frequency. Approximately one fourth of each staff reported using whole class instruction at a high frequency. A large majority of respondents from both samples reported using a variety of teaching methods in their classes, with UDHS slightly higher than WTHS. According to this data, the type of class schedule, traditional versus block, did not cause a significant difference in the teaching practices of the respondents.

The intern also hypothesized that a block schedule provides for a greater opportunity for individual student instruction than a traditional schedule. However, the results of the survey analysis show that the block schedule does not necessarily allow for more individual student contact time. In fact, both schools reported a very low percentage of respondents who had a high frequency of individual student instruction.

Other areas of the survey analysis show similar results from both WTHS and UDHS. For instance, approximately two thirds of the respondents from both schools report using a variety of instructional materials other than textbooks at a high frequency. There was also no significant difference between the use of team teaching, integrated instruction or informal networking among the teaching

staffs at each school.

In three areas there was a significant difference in the way the respondents answered the survey. First, the respondents from the block scheduled school tend to use essay questions to assess student performance at a greater frequency. This may be due to the fact that a block schedule reduces the total number of students and classes a teacher meets during a grading period. According to the demographic information on class size in Table 11, the majority of the block schedule staff reports class sizes of 26 to 30 and 3 to 4 teaching periods a day. This translates to approximately 78 to 120 students per day. On the other hand, the majority of traditionally scheduled staff reports class sizes of 21 to 25 and 5 to 6 class per day. This translates to 105 to 150 students per day. Another factor which may contribute to this difference is revealed in section 2 of the survey. Here, the block scheduled staff report high satisfaction with the amount of time they have to plan lessons and grade student work. Conversely, 62% of the traditionally scheduled staff report low satisfaction with the amount of time they have for planning and grading student work.

A second area of significant difference was the belief that in-service programs were helpful. Over 50% of the block schedule staff reported high agreement that the in-service programs offered at their school were effective, while only 20% of the traditional schedule staff felt that their in-service programs were helpful. However, this result may have little to do with the type of class scheduled used.

A third area, where a difference of twenty percentage points occurred, was in the ability to cover subject material in the amount of time provided. Here, 86% of the block schedule staff reported being able to cover the material at a high frequency. Only 66% of the traditional schedule staff reported being able

to cover the material at a high frequency.

Prior to analyzing the data, the intern also expected to find that the teachers in the block schedule would have a higher degree of satisfaction with student achievement, student attitude, and teacher workload than the teachers in the traditional schedule. Although both the block staff and the traditional staff reported relatively high satisfaction overall, the block schedule respondents reported significantly higher satisfaction with their students' ability to apply what they have learned, the completion rate of their students' work, their students' attitude toward school, and the amount of time they have for lesson planning, correcting and grading students' work.

Based on the results of the data analysis, it would appear that the type of class schedule employed by the two schools in this study did not have a significant influence on teaching practices and behaviors. However, it also appears that the schedule may have a significant influence on teacher satisfaction. When asked to respond to the item, "I am enthusiastic about my school," 98% of the respondents from the block scheduled school answered always or most of the time. In comparison, only 71% of the respondents from the traditionally scheduled school answered always or most of the time.

Chapter 5

Conclusions, Implications and Further Study

The purpose of this study was to investigate and compare the classroom behaviors and practices of high school teachers both in a traditionally scheduled school and in a block scheduled school. The population of the study was the teachers of Washington Township High School in Sewell, New Jersey, where a traditional schedule is used and the teachers of Upper Darby High School in Upper Darby, Pennsylvania, where a 4/4 block schedule is used.

The intern used the survey method to obtain the data for the study. The sample population was asked to respond to a four part survey which included the following information: Section 1 - Classroom Practices and Procedures, Section 2 - Teacher Satisfaction with Classroom Practices and Procedures, Section 3 - Attitude Toward Present Schedule, and Section 4 - Demographics. A total of 47% of the Washington Township sample population and 54% of the Upper Darby sample population returned the survey. The data collected were analyzed and presented in tabular form. Conclusions and recommendations are made in the remainder of this chapter.

Conclusions

The analysis of the results of the teacher survey yields several major findings, which are listed below according to the sections of the survey. The supportive data for these findings are found in the report's appendices.

The following conclusions are based on the data from Section 1 - Classroom Practices and Procedures:

1. Teachers in the 4/4 block schedule are more likely to use a variety of teaching methods during each class period than teachers in the traditional schedule.

2. Teachers in the 4/4 block schedule are more likely to cover class material in the allotted time than teachers in the traditional schedule.

The following conclusion is based on the data from Section 1 -
Teacher/Student Attitude/Interest:

3. Teachers in the 4/4 block schedule have a higher degree of satisfaction and enthusiasm about their school.

The following conclusions are based on the data from Section 1 -
Instructional Materials and Assessment:

4. The majority of the teachers in both the 4/4 block schedule and the traditional schedule use a variety of instructional materials, and do not rely on textbooks as a primary resource.

5. Teachers in the 4/4 block schedule are more likely to use essay questions for assessment than teachers in the traditional schedule.

The following conclusions are based on the data from Section 1 -
Professional Practices:

6. The use of technology for non-instructional tasks is consistent in both the 4/4 block schedule and the traditional schedule.

7. Although low in both schools, the team approach and integration of instruction occurs more frequently in the 4/4 block schedule.

8. Informal support/discussion/exchange of ideas and resources is consistent in both the 4/4 block schedule and the traditional schedule.

The following conclusions are based on the data from Section 2 -
Teacher Satisfaction:

9. Teachers in the 4/4 block schedule are more satisfied with the amount of planning time than the teachers in the traditional schedule.

10. Teachers in the 4/4 block schedule are more satisfied with their students' completion of work than the teachers in the traditional schedule.

11. Teachers in the 4/4 block schedule have greater satisfaction with their students' attitude toward school than the teachers in the traditional schedule.

12. Teachers in the 4/4 block schedule are more likely to be satisfied that their students can apply what they have learned than the teachers in the traditional schedule.

13. Teachers in the traditional schedule are more satisfied with their relationships with their students than the teachers in the 4/4 block schedule.

The following conclusions are based on the data from Section 3 - Attitude Toward Current Schedule:

14. Teachers in the 4/4 block schedule are more satisfied with their current class schedule, and report a greater desire to remain in the present schedule than the teachers in the traditional schedule.

15. The majority of the teachers in the traditional schedule remain undecided about what schedule they would prefer, and an additional one-third of the teachers in the traditional schedule would like to change schedules.

Implications and Further Study

Based on the findings of this study, the intern makes the following recommendations:

1. Ongoing in-service training programs focusing on student-centered teaching methodology should be offered to the staff of Washington Township High School.

2. Further research regarding alternative scheduling should be undertaken by Washington Township High School to contribute to the decision-making process that is already underway.

3. Further research should be undertaken by Washington Township High School to determine the relationship between the teaching schedule and teaching methodology and assessment.

4. Further investigation of block scheduling, in the form of visitations to other block scheduled schools by teaching staff members and students, should be undertaken by Washington Township High School.

5. Further research should be undertaken by Washington Township High School to determine the relationship between the teaching schedule and the ability of the teaching staff to cover the curriculum.

6. Further research should be undertaken by Washington Township High School to determine the relationship between the teaching schedule and teacher satisfaction.

7. Similar research should be conducted at other high schools employing both a block schedule and a traditional schedule for the purpose of further comparison.

8. Further research should be undertaken by Washington Township High School to determine how teachers can effectively plan for large blocks of time; and in-service training programs of this nature should be implemented.

9. In subsequent studies of this nature, questions regarding school climate, student behavior and student attendance should be included in the survey instrument.

10. A similar study should be done to establish the beliefs and attitudes of students regarding the class schedule at their school.

This study gave the intern the opportunity to conduct action research that contributes to the decision-making process underway at Washington Township High School. The results of this study will add to the body of knowledge already compiled regarding the effects of a school's schedule on the implementation of strategies to improve educational delivery and student and school performance. Throughout this study the intern was able to develop leadership skills that emphasized interacting effectively with others; producing clear, concise, properly structured written communication; and applying effective strategies for assessing school programs.

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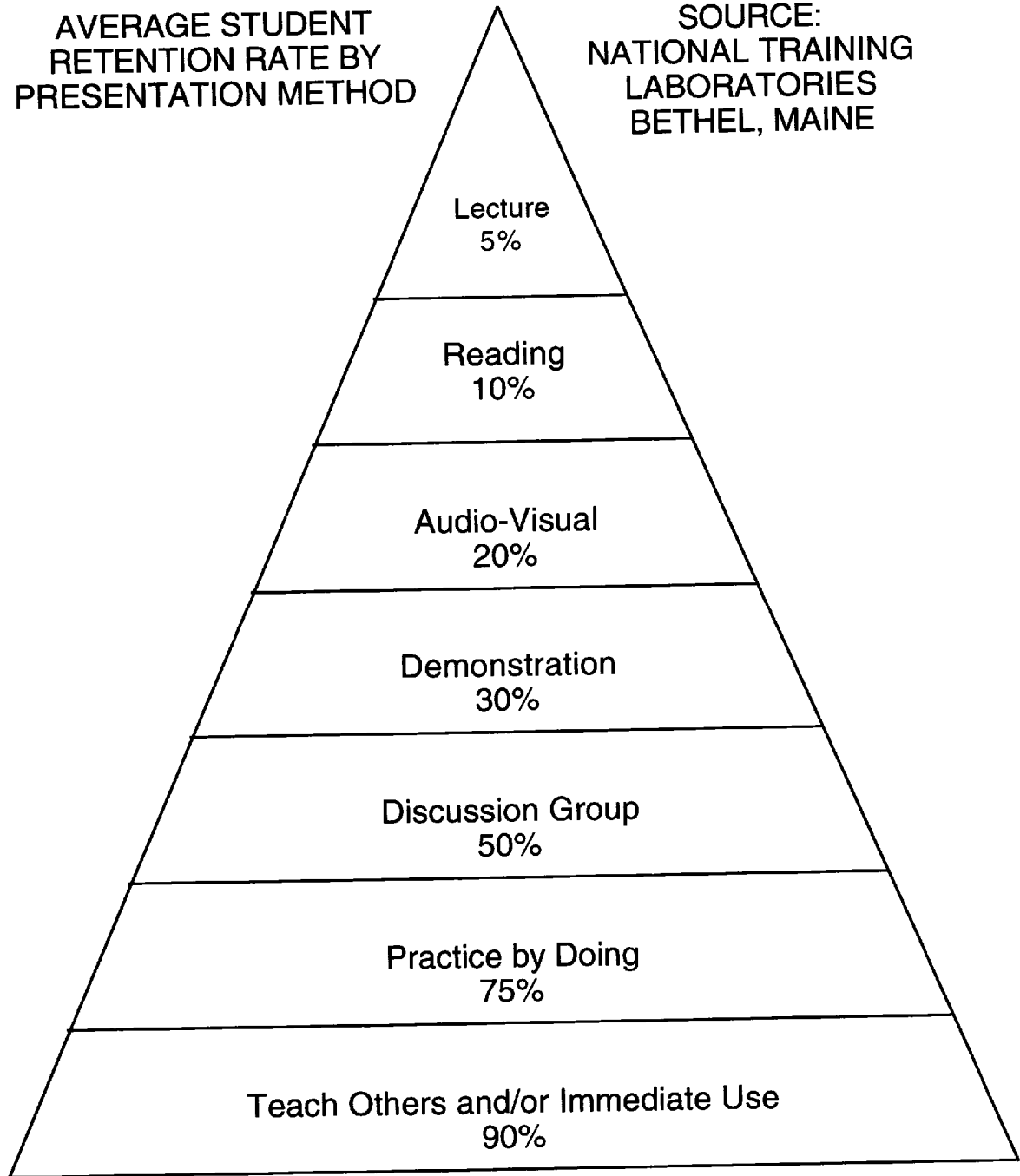
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APPENDIX A
THE LEARNING PYRAMID

The Learning Pyramid

AVERAGE STUDENT
RETENTION RATE BY
PRESENTATION METHOD

SOURCE:
NATIONAL TRAINING
LABORATORIES
BETHEL, MAINE



APPENDIX B
SURVEY COVER LETTER TO
WASHINGTON TOWNSHIP HIGH SCHOOL STAFF

Survey Cover Letter to Washington Township High School Staff

November 15, 1999

Dear Colleague,

Attached is a survey I have prepared for my thesis study of high school classroom processes and practices, as they relate to teaching and learning. I would appreciate it if you could take the time to complete it at your earliest convenience and return it to my mailbox in the 9-10 main office by Wednesday, November 24th. You have been chosen randomly. Please be assured that all responses will be kept completely confidential. I thank you in advance for your anticipated cooperation and participation in this study.

Sincerely,

Ann Moore

APPENDIX C
SURVEY COVER LETTER TO
UPPER DARBY HIGH SCHOOL STAFF

Survey Cover Letter to Upper Darby High School Staff

Washington Township High School
509 Hurffville-Crosskeys Rd.
Sewell, New Jersey 08080
November 11, 1999

Upper Darby High School
Lansdowne Ave. & School Ln.
Upper Darby, PA 19082

Dear Colleague,

I am a member of the teaching staff at Washington Township High School. I am also a graduate student at Rowan University working on my Master's Degree in School Administration. For the past several years Washington Township has been investigating block scheduling and I have had the opportunity to visit your school to observe the block schedule and to talk to several of the staff members. For my thesis, I have designed a study to compare the teaching processes and practices in both a block scheduled high school and a traditionally scheduled high school.

Our schools are very comparable in size and, therefore, I felt Upper Darby was a good choice for gathering data on block scheduling. Please complete the attached survey, and return it to Mrs. Margaret Pries, at your earliest convenience. I will also be surveying staff members at Washington Township High School to gather information from a traditionally scheduled school.

I want to assure that all survey information will be kept confidential. I also want to thank you in advance for taking the time from your busy schedule to participate in this study.

Sincerely,

Ann Moore

APPENDIX D
TEACHER SURVEY

Teacher Survey

The purpose of this survey is to collect your perceptions regarding classroom processes and practices, especially as they relate to teaching and learning. **ALL RESPONSES ARE COMPLETELY CONFIDENTIAL.**

Section 1

Directions: Please **CIRCLE** the number for each item that best indicates the frequency with which the behaviors occur in *your* classes *this year*. If you do not know or do not have enough information to answer any item, please circle **8** for Don't Know.

	Always	Most of the Time	Some of the Time	Seldom	Never	Don't Know
1. I use group activities in my classes.	1	2	3	4	5	8
2. In my classes, time is distributed among whole class instruction, small group work, and individual study.	1	2	3	4	5	8
3. Most class time is spent in whole class instruction.	1	2	3	4	5	8
4. I work with my students in individual study.	1	2	3	4	5	8
5. I am able to cover material for my classes in the amount of time provided.	1	2	3	4	5	8
6. I experience problems with student attentiveness in my classes.	1	2	3	4	5	8
7. I experience problems with student interest in my classes.	1	2	3	4	5	8
8. My students are able to complete their homework in school.	1	2	3	4	5	8
9. I use textbooks as a primary instructional tool.	1	2	3	4	5	8
10. I use a variety of instructional materials other than textbooks in my classes.	1	2	3	4	5	8
11. I use portfolios to assess my students' performance.	1	2	3	4	5	8
12. I use essay questions to assess my students' performance.	1	2	3	4	5	8
13. I use multiple choice and true-false questions to assess my students' performance.	1	2	3	4	5	8
14. I use whole class lecture in my classes.	1	2	3	4	5	8
15. I use worksheets in my classes.	1	2	3	4	5	8
16. I am enthusiastic about my school.	1	2	3	4	5	8

Always	Most of the Time	Some of the Time	Seldom	Never	Don't Know
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17. I use learning technologies for developing instructional materials, lesson plans, and/or grading.	1	2	3	4	5	8
18. I use rubrics (specific criteria) for scoring student assignments.	1	2	3	4	5	8
19. The in-service workshops provided by my school are helpful.	1	2	3	4	5	8
20. Teachers at my school form informal support/discussion groups to exchange ideas and resources.	1	2	3	4	5	8
21. Teachers at my school take a team approach to teaching.	1	2	3	4	5	8
22. Teachers at my school work to integrate instruction across subject areas.	1	2	3	4	5	8

Section 2

Directions: This set of questions relates to your satisfaction with teaching processes and classroom activities at your high school. Please **CIRCLE** the number that best indicates the level of your agreement with each item. Please answer the items based on your satisfaction with *your* classes *this year*. If you do not know or do not have enough information to answer any item, please circle 8 for Don't Know.

	Always	Most of the Time	Some of the Time	Seldom	Never	Don't Know
1. My general attitude toward my school is positive.	1	2	3	4	5	8
2. Generally, I am satisfied with the size of my classes.	1	2	3	4	5	8
3. Generally, I am satisfied with the level of academic challenge I provide my students.	1	2	3	4	5	8
4. Generally, I am satisfied with my effectiveness as a teacher.	1	2	3	4	5	8
5. Generally, my teaching methods are the same as they have always been.	1	2	3	4	5	8
6. Generally, I am satisfied with my student's achievement this year as reflected in their grades.	1	2	3	4	5	8
7. Generally, I am satisfied with the depth of coverage of material in my classes.	1	2	3	4	5	8
8. Generally, I am satisfied that my students can apply what they have learned.	1	2	3	4	5	8
9. Generally, my students are mastering important concepts.	1	2	3	4	5	8
10. Generally, I am satisfied with the completion rate of my students' work.	1	2	3	4	5	8
11. In general, my students' attitudes toward school are positive.	1	2	3	4	5	8
12. Generally, my students are gaining an in-depth understanding of the subject matter.	1	2	3	4	5	8
13. Generally, I am satisfied with the quality of my relationships with my students.	1	2	3	4	5	8
14. Generally, I am satisfied with the amount of time I have for lesson planning, correcting, and grading.	1	2	3	4	5	8
15. Generally, I am satisfied with the amount of interaction I have with my colleagues.	1	2	3	4	5	8
16. Generally, I am able to cover the approved curriculum in my classes.	1	2	3	4	5	

Section 3

Directions: This set of questions relates to the **CURRENT CLASS SCHEDULE** at your high school. Please check the box next to the appropriate response for each item.

1. When compared to other schedules, the traditional 8 period school day provides the best opportunity for learning.

- 1 Strongly agree
- 2 Agree
- 3 Neutral
- 4 Disagree
- 5 Strongly disagree

2. The traditional format of approximately 45 minute classes over approximately 180 days is beneficial to quality education.

- 1 Strongly agree
- 2 Agree
- 3 Neutral
- 4 Disagree
- 5 Strongly disagree

3. There are alternative schedules that are beneficial to quality education.

- 1 Strongly agree
- 2 Agree
- 3 Neutral
- 4 Disagree
- 5 Strongly disagree

4. I like the current daily schedule of classes at my school.

- 1 Strongly agree
- 2 Agree
- 3 Neutral
- 4 Disagree
- 5 Strongly disagree

5. Overall, I would rate my experience of teaching under the current schedule as

- 1 Excellent
- 2 Good
- 3 Fair
- 4 Poor
- 5 Terrible

6. Considering all your impressions about the current schedule at you high school, select a response.

- 1 I would like to remain in the current schedule.
- 2 I would like to teach under a different schedule.
- 3 I have no opinion.
- 4 I am undecided.

Section 4

Directions: This set of questions relates to demographic information. Please check the appropriate response.

1. What is your gender?
1 Female
2 Male
2. What is your age?
1 20-29
2 30-39
3 40-49
4 50-59
5 60 or over
3. What is your highest level of education?
1 Bachelors degree
2 Masters degree
3 Doctorate
4 Other (specify _____)
4. Do you work:
1 Part-time
2 Full-time
5. How many years have you been teaching?
1 Less than 1 year
2 1-2 years
3 3-5 years
4 6-10 years
5 11-15 years
6 16-20 years
7 More than 20 years
6. What is you major teaching assignment?
1 Art
2 Computer/Business Education
3 Driver Education
4 English/Language Arts/Reading
5 Drama
6 Family/Consumer Sciences
7 Foreign Language
8 Health/Physical Education
9 Mathematics
10 Music
11 Band
12 Orchestra
13 Chorus

14 Science
15 Social Studies
16 Special Education
17 Technology Education
7. Total number of years at present school:
1 Less than 1 year
2 1-2 years
3 3-5 years
4 6-10 years
5 11-15 years
6 16-20 years
7 More than 20 years
8. How many periods do you teach a day?
1 1-2
2 3-4
3 5-6
9. How many preparations do you have this year?
1 1
2 2
3 3
4 4 or more
10. My average class size is:
1 5-10 students
2 11-15 students
3 16-20 students
4 21-25 students
5 26-30 students
6 31 or more students
11. How many AP classes do you teach?
1 None
2 1
3 2
4 3
5 4 or more
12. How many Honors classes do you teach?
1 None
2 1
3 2
4 3
5 4 or more
13. If any or your students have transferred into one or more of your classes this year from another school, how successful were you in accommodation these students?
1 Extremely successful
2 Somewhat successful
3 Not very successful
4 Extremely unsuccessful
5 No students have transferred into my classes

APPENDIX E
TEACHER SURVEY RESULTS

Teacher Survey Results

The survey results are reported below according to the percentage of responses for each category of each question. The results are reported for Washington Township High School, where a traditional schedule is used, and for Upper Darby High School, where a 4/4 block scheduled is used. The last column indicates the mean score for each question for each school.

Table 10 - Teaching Practices and Behaviors							
		Always	Most of the Time	Some of the Time	Seldom	Never	Mean Score
1. I use group activities in my classes.	WTHS	9%	20%	65%	4%	2%	2.72
	UDHS	0	33%	61%	6%	0	2.72
2. In my classes, time is distributed among whole class instruction, small group work, and individual study.	WTHS	13%	51%	26%	8%	2%	2.36
	UDHS	25%	48%	25%	2%	0	2.04
3. Most class time is spent in whole class instruction.	WTHS	0	29%	37%	27%	7%	3.11
	UDHS	0	22%	33%	37%	8%	3.30
4. I work with my students in individual study.	WTHS	7%	9%	50%	27%	7%	3.20
	UDHS	2%	8%	58%	30%	2%	3.22
5. I am able to cover material for my classes in the amount of time provided.	WTHS	13%	53%	26%	6%	2%	2.32
	UDHS	34%	52%	6%	6%	2%	1.89
6. I experience problems with student attentiveness in my classes.	WTHS	0	11%	57%	28%	4%	3.26
	UDHS	0	15%	47%	34%	4%	3.26
7. I experience problems with student interest in my classes.	WTHS	0	4%	57%	35%	4%	3.39
	UDHS	0	9%	50%	35%	6%	3.37
8. My students are able to complete their homework in school.	WTHS	0	13%	45%	23%	19%	3.36
	UDHS	0	10%	29%	39%	22%	3.73
9. I use textbooks as a primary instructional tool.	WTHS	4%	19%	36%	26%	15%	3.36
	UDHS	2%	22%	48%	26%	2%	3.04

		Always	Most of the Time	Some of the Time	Seldom	Never	Mean Score
10. I use a variety of instructional materials other than textbooks in my classes.	WTHS	37%	39%	20%	4%	0	1.91
	UDHS	26%	42%	30%	2%	0	2.07
11. I use portfolios to assess my students' performance.	WTHS	11%	11%	13%	25%	40%	3.71
	UDHS	6%	13%	24%	28%	29%	3.63
12. I use essay questions to assess my students' performance.	WTHS	4%	9%	56%	20%	11%	3.24
	UDHS	11%	20%	43%	19%	7%	2.91
13. I use multiple choice and true-false questions to assess my students' performance.	WTHS	7%	15%	61%	15%	15%	2.91
	UDHS	11%	19%	53%	11%	6%	2.82
14. I use whole class lecture in my classes.	WTHS	2%	11%	64%	15%	8%	3.17
	UDHS	2%	13%	57%	24%	4%	3.15
15. I use worksheets in my classes.	WTHS	6%	36%	43%	13%	2%	2.68
	UDHS	7%	22%	61%	10%	0	2.72
16. I am enthusiastic about my school.	WTHS	23%	58%	19%	0	0	1.96
	UDHS	35%	63%	2%	0	0	1.67
17. I use learning technologies for developing instructional materials, lesson plans, and/or grading.	WTHS	36%	24%	24%	16%	0	2.20
	UDHS	17%	39%	40%	2%	2%	2.33
18. I use rubrics for scoring student assignments.	WTHS	11%	42%	23%	13%	11%	2.70
	UDHS	7%	30%	46%	11%	6%	2.78
19. The in-service workshops provided by my school are helpful.	WTHS	0	20%	44%	25%	11%	3.27
	UDHS	2%	49%	39%	6%	4%	2.59

		Always	Most of the Time	Some of the Time	Seldom	Never	Mean Score
20. Teachers at my school form informal support/discussion groups to exchange ideas and resources.	WTHS	16%	23%	36%	14%	11%	2.82
	UDHS	6%	30%	43%	17%	4%	2.83
21. Teachers at my school take a team approach to teaching.	WTHS	5%	8%	42%	32%	13%	3.40
	UDHS	6%	12%	60%	20%	2%	3.02
22. Teachers at my school work to integrate instruction across subject areas.	WTHS	0	8%	33%	51%	8%	3.59
	UDHS	0	11%	43%	42%	4%	3.38

Table 11 - Teacher Satisfaction

		Always	Most of the Time	Some of the Time	Seldom	Never	Mean Score
1. My general attitude toward my school is positive.	WTHS	15%	70%	13%	2%	0	2.02
	UDHS	23%	73%	4%	0	0	1.98
2. Generally, I am satisfied with the size of my classes.	WTHS	15%	51%	25%	9%	0	2.28
	UDHS	9%	60%	11%	11%	9%	2.52
3. Generally, I am satisfied with the level of academic challenge I provide my students.	WTHS	13%	60%	19%	4%	0	2.23
	UDHS	13%	70%	15%	2%	0	2.06
4. Generally, I am satisfied with my effectiveness as a teacher.	WTHS	9%	80%	9%	2%	0	2.04
	UDHS	15%	72%	13%	0	0	1.98
5. Generally, my teaching methods are the same as they have always been.	WTHS	0	13%	62%	25%	0	3.11
	UDHS	0	22%	58%	20%	0	2.98

		Always	Most of the Time	Some of the Time	Seldom	Never	Mean Score
6. Generally, I am satisfied with my student's achievement this year as reflected in their grades.	WTHS	5%	53%	29%	13%	0	2.51
	UDHS	6%	62%	27%	7%	0	2.35
7. Generally, I am satisfied with the depth of coverage of material in my classes.	WTHS	7%	62%	17%	14%	0	2.38
	UDHS	7%	59%	26%	6%	2%	2.35
8. Generally, I am satisfied that my students can apply what they have learned.	WTHS	9%	54%	30%	7%	0	2.35
	UDHS	13%	64%	21%	2%	0	2.13
9. Generally, my students are mastering important concepts.	WTHS	9%	67%	22%	2%	0	2.17
	UDHS	9%	65%	24%	2%	0	2.19
10. Generally, I am satisfied with the completion rate of my students' work.	WTHS	2%	47%	45%	6%	0	2.55
	UDHS	7%	61%	25%	7%	0	2.32
11. In general, my students' attitudes toward school are positive.	WTHS	4%	43%	46%	7%	0	2.54
	UDHS	6%	55%	30%	9%	0	2.43
12. Generally, my students are gaining an in-depth understanding of the subject matter.	WTHS	4%	53%	34%	9%	0	2.47
	UDHS	4%	59%	26%	11%	0	2.44
13. Generally, I am satisfied with the quality of my relationships with my students.	WTHS	20%	73%	7%	0	0	1.87
	UDHS	20%	59%	19%	2%	0	2.02
14. Generally, I am satisfied with the amount of time I have for lesson planning, correcting, and grading.	WTHS	2%	17%	19%	47%	15%	3.60
	UDHS	13%	39%	35%	9%	4%	2.52

		Always	Most of the Time	Some of the Time	Seldom	Never	Mean Score
15. Generally, I am satisfied with the amount of interaction I have with my colleagues.	WTHS	4%	30%	38%	26%	2%	2.91
	UDHS	9%	39%	33%	15%	4%	2.65
16. Generally, I am able to cover the approved curriculum in my classes.	WTHS	18%	54%	15%	11%	2%	2.26
	UDHS	26%	57%	9%	4%	4%	2.02

Biographical Data

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