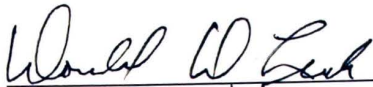


THE EFFECTS OF BLOCK SCHEDULING ON INSTRUMENTAL
MUSIC PROGRAMS IN TENNESSEE

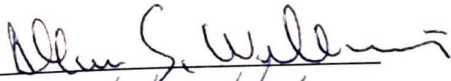
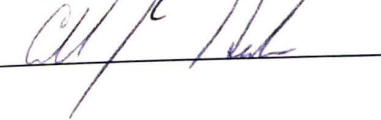
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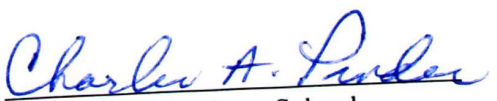
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Major Professor

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July 13, 2006

THE EFFECTS OF BLOCK SCHEDULING ON INSTRUMENTAL MUSIC
PROGRAMS IN TENNESSEE

A Field Study
Presented for the
Education Specialist
Degree
Austin Peay State University

Robbin L. Johnston

July 2006

DEDICATION

This thesis is dedicated to the memory of my father,

Beauford R. Gibbons

who instilled in me the importance of hard work

and

the value of education in all of our lives.

ACKNOWLEDGEMENTS

I would like to extend my heartfelt thanks to Anna Kniazewycz at the Tennessee State Department of Education for her unending support and patience throughout this study. Without her willingness to provide data and information, this study would not have been possible.

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Special thanks to my colleague and friend, Janice Cook - I could not have completed this project or degree without her unwavering support.

Finally, thank you to my husband, Jeff, my mother, Irene, and children, Chris, Jessica, Greg, and Amanda, for sacrificing time with your wife, daughter, and mother for the precious hours necessary to complete this project. For my children - may you value your ability to continue to learn throughout your lives as much as I love and value each of you.

ABSTRACT

Scheduling is one of many strategies educators investigate in an attempt to provide a more positive environment in which to teach and learn. In order to assess possible effects of block scheduling, this study focuses on instrumental music program scheduling and enrollment in Tennessee from 2002 through 2006.

Analyses support that the type of schedule observed does effect the participation of students in instrumental music programs in Tennessee. However, additional results show no statistically significant difference between the size of school and type of schedule. The mixed results of this study support the necessity of continued research regarding scheduling and other important issues affecting music education in the state of Tennessee.

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CHAPTER I

INTRODUCTION TO THE PROBLEM

Importance of the Problem

With the mandates of programs such as No Child Left Behind, the past decade in our nation has seen much of the emphasis in education shift to those areas of the curriculum that are the subject of high stakes testing. As educators, we are constantly searching for ways to motivate students, improve test scores, and increase graduation rates. All areas of the curriculum are under greater scrutiny than in the past.

Unfortunately, as various methods of reform have been researched and implemented, music programs have often suffered budget shortfalls, program cuts, reduction in music faculty, elimination of courses, and scheduling conflicts.

In today's competitive society, it is important to maintain quality performance arts programs at the high school level. These programs provide students with creative opportunities that foster enhanced self-esteem, positive self-worth, and a motivated work ethic. As well as encouraging intrinsic qualities in the emotional development of students, these activities often provide excellent post-secondary scholarship opportunities. The scheduling of these classes during the school day has consistently provided a challenge for administrators, teachers and students.

Statement of the Problem

Class scheduling can greatly affect the success or failure of the performing arts at the high school level. In the past decade, block scheduling has been implemented in many schools in the state of Tennessee. Since this implementation, directors of instrumental

music programs report that they have experienced problems in participation and the retention of students in their programs.

Purpose of the Study

This study investigated the effects of block scheduling on participation and the retention of students in high school instrumental music ensembles throughout the state of Tennessee.

Significance of the Study

Flexible scheduling in American public schools has been studied in depth during the past ten years. Most of the available research shows that block scheduling has provided mixed results throughout our nation, depending upon the socio economic status, region, size of school, and participant's attitudes. Often music, arts, math, and foreign languages courses experience problems in student retention of learning and sequential participation in the block format. Since scheduling has such deep ramifications on student participation in high school performance groups, it is important to determine whether the drop in membership reported by instrumental music directors is a direct result of the implementation of block scheduling in these schools.

Research Questions

1. Has block scheduling affected the number of students participating in the school's instrumental music programs between the fall and spring block semesters?
2. Does the size of school (small, medium, or large) on block scheduling reflect a statistically significant difference in the participation of students in the instrumental music programs in Tennessee?

3. Does the type of schedule (traditional or block) reflect a statistically significant difference in the participation of students in the instrumental music programs in Tennessee?

Hypotheses

1. Block scheduling has had no effect on the participation of students between the fall and spring block semesters in high school instrumental music programs in Tennessee.
2. The size of school (small, medium, large) on block scheduling has had no effect on the participation of students in instrumental music programs in Tennessee.
3. The type of schedule observed has had no effect on the participation of students in instrumental music programs in Tennessee.

Limitations

1. This study was limited to schools that had reported four successive years (2002 - 2006) of complete information regarding total school enrollment and instrumental class enrollment to the Tennessee State Department of Education.
2. Schools may use different variations of block scheduling.
3. School rezoning that may affect program numbers was not considered.
4. Change of teacher and/or instrumental music staff was not considered.

Assumptions

1. All instrumental ensemble directors were certified and highly qualified music educators.
2. Data reported by the Tennessee State Department of Education was correct.

Definitions of Terms

Block Scheduling – organizes the school day into fewer, but longer, class periods to allow flexibility for instructional activities (Northeast, 1998).

Ensemble – any combination of students involved in an instrumental music endeavor.

Instrumental music program – band and orchestra programs at the 9 through 12 level.

Participation – student enrollment in an instrumental music class as reported by schools to the Tennessee State Department of Education.

Retention – the percentage of the school's total student enrollment in instrumental music that remains stable or shows growth throughout the duration of the study.

Traditional schedule – students enrolled in six or seven class periods per day throughout the entire school year, earning one half credit per semester per class.

CHAPTER II

REVIEW OF LITERATURE

Introduction

American high schools use class scheduling as a means of organizing curriculum and its delivery and controlling student interactions. Scheduling is a form of time management that enables educational programs to be realized, restrained, or restricted. School scheduling, as we know it in the 20th century, can be traced to the 1910 proposal by the Carnegie Foundation of a curriculum based on 120 hours of student attendance in any given subject matter as a measure of the worth of a high school credit. This time measure of academic progress was called the Carnegie Unit. This became the structural component on which schools organized curriculum and its delivery. Following this plan, everyday schedules were devised where classes meet 4 or 5 times per week, for 40 to 60 minutes, for 36 to 40 weeks (Pisapia & Westfall, 1997).

Many observers feel that the traditional every-day single period schedule centered on Carnegie Units restricts teaching strategies, flexible grouping, individualized instruction, and independent study. Proponents of flexible scheduling feel that the traditional schedule has outlived its usefulness in modern high schools. Several ideas have been propagated as alternative means of time management of the curriculum, particularly at the high school level (Pisapia & Westfall, 1997).

In 1959, J. Lloyd Trump of the Oregon Department of Education proposed eliminating the traditional high school schedule in favor of classes of varying lengths, according to the instructional needs of the students. In the Trump Plan, classes would consist of a 40-minute lecture, 100-minute lab and a 20-minute help session each week.

Other classes would be held for short periods of 20 or 30 minutes. This plan was known as flexible modular scheduling or FMS (Kienholz, Segall & Yellin, 2003). Teachers using this design would be encouraged to experiment with a variety of instructional strategies (Queen, 2000).

Experimentation with schedules began in earnest in the late 1960's and early 1970's as flexible modular schedules began to be implemented in American high schools (Pisapia & Westfall, 1997; Queen, 2000). Problems with varying the length of these modules and unscheduled time blocks led to teachers having difficulties tailoring their teaching practices and increased student discipline issues. These issues eventually brought about the demise of the movement for that time (Pisapia & Westfall, 1997).

The 1984 report, The Nation at Risk, found that American students were academically lagging behind their counterparts in several other industrialized nations (Queen, 2000). The report recommended that the school year be lengthened, graduation requirements raised, and advocated the addition of required foreign language, elective courses, and technology. The initial recommendations of the report called for increases in the length of school day and school year. Opponents of this idea argued that only 60% of the school day was currently used for actual instruction. Flexible scheduling began to be explored again as a means of using the time available in the school day more efficiently. In order to accomplish the goals outlined in the report, it would be necessary to study and adjust how time was used and accounted for in America's schools (Pisapia & Westfall, 1997). This report hastened an era where education has focused on the restructuring of schools, including their schedules, as a central way of seeking improvement (Queen, 2000).

In 1994, the National Education Commission on Time and Learning concluded, “Learning in America is a prisoner of time.” The Commission continued their comment, For the past 150 years, American public schools have held time constant and let learning vary. The rule, only rarely voiced, is simple: learn what you can in the time we make available. It should surprise no one that some bright, hard-working students do reasonably well. Everyone – from the typical student to the dropout – runs into trouble. Time is the learning’s warden. (p. 71)

The most recent advocacy of seeking to enhance learning through time management can be found in the 2001 No Child Left Behind Act (Metzker, 2003).

Why “Block?”

A plethora of information exists on flexible scheduling in American schools. Many reasons have been explored as the catalyst for this change. Following A Nation At Risk in 1984, schools have explored many versions of flexible scheduling. Researchers (Northeast, 1998), have noted the following advantages of block scheduling:

- Improved teaching and learning
- Student ability to better focus attention
- Fragmentation reduced – classroom management simplified
- Individualized pacing
- More course offerings
- Stronger interpersonal relationships between teachers and students
- Teachers have more time for collaboration
- Achievement levels increase
- Student attitudes and comprehension improve

- Standardized test scores maintained
- Pace of school relaxes – fewer class changes
- Improvement in student discipline
- Additional funding unnecessary (textbooks and materials)

The most obvious benefit of block scheduling is in the increase of daily instructional time and the decrease of the number of classes each day, both for students and teachers (Northeast, 1998). Fewer textbooks are required for each subject area, as a smaller number of students are enrolled in each class per semester. The lower teacher/pupil ratio is considered to be one of the most positive aspects of block scheduling (McCoy, 1998; Rettig & Canady, 2003).

Many case studies exist that support the implementation of block scheduling. In the Evans study (2002), three school districts were evaluated and found to experience many positive outcomes from the implementation of block scheduling. As well as the attributes discussed above, students were found to score higher on Advanced Placement tests, the Scholastic Aptitude Test (SAT), and the High School Proficiency Test (HSPT) given by the state. Average daily student attendance had increased. Although school suspensions remained stable, these systems experienced a significant decrease of about 50 percent in the number of after school detentions after the implementation of block scheduling. Earlier studies by McCoy (1998) and Deuel (1999), conducted in a variety of socio economic areas, yielded similar findings. A more recent study conducted in East Tennessee (Griffin & Nicholson, 2002), also reflected positive outcomes supporting the continuation of block scheduling at two high schools sharing similar socio economic and cultural characteristics.

Different models of block scheduling provide distinct advantages. Each revolves around the effective and innovative use of extended time in the classroom as a key mechanism for change (Northeast, 1998). Variations of the 4 X 4 block schedule have been made to include greater opportunities to better meet student needs and teacher concerns. The A/B Block schedule, 75/75/30 plan, the Trimester Plan, and the inclusion of 'skinnies' are modifications that have been explored by educators as a means of alleviating the concerns of a standardized block schedule (Rettig & Canady, 2003). Available research consistently echoes the theme that the benefits of block scheduling extend into far reaching areas of school climate, academics, human interaction, function and structure, resources, time and space (Creamean & Horvath, 2000).

Why "Not Block?"

Research has found that merely changing the amount of time students spend in class through block scheduling does not guarantee school success (Queen, 2000). The success or failure of the current block scheduling movement largely depends on teachers' abilities to adapt instruction to the longer instructional period (Rettig & Canady, 2003). Without appropriate changes in instructional practices and the effective use of class time, block scheduling has not proven any more successful than traditional scheduling (Queen, 2000). Concerns have persisted with the implementation of block scheduling in several areas. Researchers have documented faculty resistance to changing teaching styles to accommodate the longer class periods, scheduling not addressing the concerns of special areas such as music, at-risk students, and foreign language classes, and perhaps most importantly, a continued lack of meaningful professional development for teachers. As a result of these deficiencies, additional evidence has arisen to support the idea that some

segments of the student population are experiencing a sense of disengagement from each other. Rather than drawing students closer to the mandates of “No Child Left Behind,” it appears that the gap between at-risk students and their college preparatory counterparts may be widening under the block schedule format (Corley, 2001). Problems that have been associated with block scheduling include:

- Difficulty in scheduling music and Advanced Placement classes
- Content retention
- Overuse of lectures and study halls
- Class time may drop
- Transferring can be problematic
- Absences are difficult to make up (Northeast, 1998)

Ample case studies also exist that document problems related to block scheduling. In Lawrence and McPherson (2000), researchers were surprised by findings that students taking the North Carolina End of Course tests mean scores on the traditional schedule were consistently higher than the mean scores on the block schedule. Although classroom grades did adequately reflect student success on these tests, the standardized tests did not show the same statistically significant findings expected by the researchers.

McCoy and Taylor (2000) found very little difference in standardized testing after the implementation of block scheduling and that attendance actually worsened in the district they researched. Newman and Trenta (2002) conducted a four-year longitudinal study in a small mid-western city using only hard data items such as grade point averages and attendance that revealed a mixed outcome. They found that many variables beyond

the schedule itself were more influential in the success or failure of the implementation of block scheduling.

Little research exists as to the impact of block scheduling on gifted and talented students. Previous studies indicate that students functioning at a high level typically continue to do so regardless of scheduling. Schultz (2000) found that gifted students often expressed the concern that block scheduling was wasting more instructional time. Problems with adequate professional development in block scheduling as a whole and the curricular differentiation and means of alternative assessment required to adequately address the gifted learner were cited as the source of most concerns.

Schools that ultimately decide to depart from the block scheduling philosophy have been found to struggle with one or more of the following issues:

- Use of a flawed decision-making process to adopt a block schedule
- Poor preparation for teaching in the block – insufficient staff development
- Unclear goals, over promising or not meeting promises made
- Poor scheduling decisions in the adoption phase
- Budgetary concerns – more teachers are necessary
- Lack of rigorous formal evaluation of the effects of scheduling (Rettig & Canady, 2003)

Many studies indicate that even after years of implementation, opinions are mixed regarding the effectiveness of the block scheduling reform initiative. Kenney (2003) interviewed the district superintendent of Escambia County in Brewton, Alabama:

At the time, that was the thing to do. Everybody was doing, it,” says Powell, now entering his 39th year in education. “Give students more classes, more electives, more opportunities-it was a big deal at the time. They put it in with great expectations, but like I said, it just didn’t pan out.” For starters, he says, “I find it hard to believe that all your teachers are teaching 93 minutes a class period. I just don’t think you have that many teachers who can do that.” Instead many teachers used the additional minutes as busy time, he contends (p. 21).

Initial ideas of a less stressful work environment were not founded. Teachers found that maintaining a fast-paced environment with students for 100 minutes left them harried and overloaded. Due to the longer class time, greater opportunities for projects existed; however, many teachers indicated that they did not cover as much material on the block as they did in a traditional schedule (Kenney, 2003).

Music Education On The Block

Prior to the implementation of block scheduling, it is imperative that scheduling concerns be addressed in depth and a plan devised to accommodate music classes. Anything short of adequate planning sets up an atmosphere of uncertainty that contributes to a negative transition to block scheduling particularly for the at-risk students, music, foreign language and JROTC programs (Rettig & Canady, 2003; Corley, 2001; Hassenflug, 1999). In 1996, Rettig and Canady stated that teachers of performing arts programs, particularly band instructors, feared that limiting instruction to one semester could hurt the quality of ensemble performance.

Positive effects of block scheduling on music education include that these schools have more opportunities for guided practice, and extra time is available during the regular

school day for skill enhancement in music, art, and vocational classes. Field trips to locations close to the school can be taken in a single period. With longer class time, rehearsals for music ensembles outside of the school day can be minimized. Many band teachers have noted improved quality when students with serious musical interests are enrolled in the program for the entire year (Queen, 2000).

When surveyed, band, orchestra, and chorus teachers were most satisfied with the seven period schedule, and least satisfied with the six period and semester block schedules (Pisapia & Westfall, 1997). Many factors led to this attitude, including the propensity of class conflicts with single offerings of foreign language and Advanced Placement courses in block scheduling. Although block scheduling provides the appearance of increased elective opportunities, block scheduling actually decreases the number of electives available to music students (Hall, 1992; Phillips, 1999).

Music educators prefer to maintain a full year curricular schedule in order to maintain the integrity of their performance ensembles. This can become problematic for students in a 4 X 4 block schedule. Pursuing this format would result in students earning two credits per year, or twenty-five percent of a student's Carnegie Units in a single performance ensemble over the course of four years of high school (Blocher & Miles, 1996; Stanley & Gifford, 1998; Phillips, 1999; Mowen, 2004). This is a major concern for parents, administrators, teachers, and students, and may actually serve to prevent some students from enrolling in more than one performing or visual arts class during a single year (Phillips, 1999). Under block scheduling, the possibility exists that there may be a complete turnover of students in a performing ensemble each semester. Research by Hall (1992), Blocker & Miles (1996) documents the decline in student enrollment in

these classes under the 4 X 4 block system. Students who drop out for one semester rarely return due to finding other interests and the subsequent loss of skills during the time not attending the ensemble (Phillips, 1999).

Summary of Literature Review

The debate on the allocation of time in American school curriculum has been a focus of research for the past fifty years. From Carnegie Units, to the Trump Plan, and finally sparked by A Nation at Risk, the battle for the perfect schedule still permeates curriculum and school reform. All research indicates that scheduling greatly affects the success or failure of many programs in the school curriculum (Kienholz, Segall, & Yellin, 2003; Queen, 2000). The success or failure of block scheduling should be judged in relationship to student achievement – the culmination of events over a period of time rather than a simple series of short-term findings (Stader & DeSpain, 1999). Many case studies reflect a strong correlation between positive attitudes, school climate, and the successful implementation of block scheduling. Although these variables are very important, the hard data reflected in numerous case studies do not support the same view of block scheduling as an education panacea (Newman & Trenta, 2002).

According to Robert Canady, a professor emeritus at the University of Virginia, avid researcher, and advocate of block scheduling, “Block can be a plus, but just because you change the bell doesn’t mean people are using block correctly. Everything depends on what the teacher does in the classroom” (Kenney, 2003, p. 4). A general consensus has formed that it is imperative that each community assess the needs of their students and school thoroughly before deciding to embark upon any kind of scheduling reform initiative (Kenney, 2003).

CHAPTER III

METHODOLOGY

Overview

This research was designed to ascertain the effects block scheduling has had on student enrollment in public high school instrumental music programs in the state of Tennessee. Data provided by the Tennessee State Department's annual reports from 2002 through 2006 was analyzed to determine whether block scheduling effected student participation in the instrumental programs of these schools versus the enrollment in similarly sized schools using traditional scheduling. Student participation was compared in terms of size of school (small, medium, and large) under both scheduling options in order to ascertain whether one type of scheduling was more or less conducive to student participation in instrumental music.

Research design

This research was non-experimental, descriptive research that compared high school instrumental music programs in schools that utilized block scheduling to those who used a traditional scheduling format. Through the use of data provided by the Tennessee State Department of Education, the research explored the possible impact of block scheduling on the enrollment of students in the instrumental music ensembles of the schools using an alternative scheduling option.

Participants

This study encompassed public high school schools in the state of Tennessee who offer instrumental music programs as part of their curriculum. Based upon the state department's information, these schools were identified as block scheduled or

traditionally scheduled schools. Once identified as block or traditionally scheduled, the participating schools were grouped based on the academic year studied, type of schedule, and size of school.

Instrument

A Microsoft Excel spreadsheet database was created to delineate the information acquired from the Tennessee State Department of Education. The data was divided into categories for study and comparison as to the type of schedule observed by the school, the total enrollment of the school, and number of students enrolled in all types of high school instrumental music classes for each year examined.

Procedure

Four years of enrollment data for all Tennessee public high schools with instrumental music programs was collected from the Tennessee State Department of Education for the academic years of 2002 through 2005. This data included each school's total enrollment, the type of scheduling used (block or traditional), and the total number of students enrolled in instrumental music classes throughout the academic year.

An Excel spreadsheet was used to categorize schools as traditional or block schools, to record the school's total enrollment, and the number of students enrolled in all instrumental music classes each year. Once identified as block or traditional schools, the schools were listed for each year to be studied (ex: 2002-2003) and the sample sorted based upon the school's total enrollment.

Each sample was then divided into thirds and schools were assigned a category based on total school enrollment size: small, medium, and large. The lower third were classified as small schools, the middle third as medium, and the largest third as large

schools. Allowances were made for schools that were approximately the same size to be placed in the same group.

Once all of the data was entered, schools having incomplete or missing data for any of the past four years were eliminated from the study. Any school that changed its scheduling option in the past four years was eliminated as well. Only schools with four years of complete enrollment information using a consistent scheduling plan (block or traditional) were used for statistical analysis.

After the spreadsheet was created and completed using the information provided by the state department, the enrollment of the instrumental music programs in each these schools then became the focus of the study. The overall percentage of the school enrolled in the instrumental music program was calculated for every school. The percentage of students enrolled in traditionally scheduled schools was compared to the percentage of students enrolled in instrumental music in block schools through many different ANOVAS. Enrollments were compared over a four-year period, with special focus given to the 2005-2006 school year. The outcome of these results allowed for the formulation of conclusions regarding the research questions and hypotheses of the study.

Data Analysis Plan

Analysis of Variances (ANOVAS) were utilized to determine the statistical relationship between the percentage of students participating in instrumental ensembles in traditional scheduling and those participating in schools using block scheduling. The analysis focused on the size of school (small, medium, or large), the type of schedule observed (traditional or block), and the percentage of the schools students enrolled in instrumental music. Schools were compared over a four-year period, 2002-2003 through

2005-2006. Analyzing student participation based upon its percentage of the school's total enrollment and the type of schedule provided the basis for concluding if any statistical differences existed between instrumental program enrollment numbers in block and traditionally scheduled schools.

Block scheduling generally provides students the opportunity to earn one credit per semester rather than one credit annually on traditional scheduling. Due to this factor, beginning in 2005, class enrollment numbers of block schools are reported to the Tennessee State Department each semester rather than once annually. Traditionally scheduled schools still report these figures in the fall of each school year. Considering this, additional ANOVAS were performed to determine if any statistically significant differences existed between the Fall 2005 and Spring 2006 semesters of the programs in block schools and the annual enrollment of those in traditionally scheduled schools. The enrollment percentages of students in block schools were also compared to determine if statistically significant differences existed in student retention between the Fall 2005 and Spring 2006 semesters.

CHAPTER IV

RESULTS

Data provided by the Tennessee State Department of Education was analyzed and placed in a Microsoft Excel database spreadsheet with the following criteria:

1. District
2. Name of School
3. Size of School
4. Schedule Observed
5. Total School Enrollment
6. Instrumental Program Enrollment
7. Percentage of School Enrolled in Instrumental Music

A worksheet was generated to record each of the available years of data:

1. 2002-2003 – All Available School Data
2. 2003-2004 – All Available School Data
3. 2004-2005 – All Available School Data
4. 2005-2006 – All Available School Data

Once the database was generated for each school year and the basic data entered for each school with an instrumental music program, an Excel formula was generated to calculate the percentage of the school's total population enrolled in instrumental music.

The spreadsheet was sorted based on total school enrollment and divided into thirds in order to assign a size label to each school. Schools were then categorized as small, medium, or large schools depending on their position on the list. The first third were defined as small, the middle as medium, and the largest third as large schools.

Schools were categorized using the following classifications related to the size of school and the type of schedule for their assignments to later worksheets and databases. These categories are used in the tables throughout the results of this study.

1. Small Block Scheduled Schools = SB
2. Medium Block Scheduled Schools = MB
3. Large Block Scheduled Schools = LB
4. All Block Scheduled Schools = AB
5. Small Traditionally Scheduled Schools = ST
6. Medium Traditionally Scheduled Schools = MT
7. Large Traditionally Scheduled Schools = LT
8. All Traditionally Scheduled Schools = AT

Once schools were defined by size, the database was sorted to group all block-scheduled schools and traditionally scheduled schools together by size. The database then listed the schools in separate groups based upon the type of schedule and size of school.

After all of the data was entered and sorted based on size of school and type of schedule, separate worksheets were generated to delineate the data. Additional databases were designed to reflect the data by school year:

1. 2002-2003 – All Schools Sorted Size/Schedule
2. 2003-2004 – All Schools Sorted Size/Schedule
3. 2004-2005 – All Schools Sorted Size/Schedule
4. 2005-2006 – All Schools Sorted Size/Schedule

At this point, all of the data was consolidated into two new worksheets:

1. All Block Schools 2002-2005

2. All Traditional Schools 2002-2005

The information was set up horizontally so that all four years of each school's data could be viewed and managed on the same line.

Grouped in this manner, it was obvious that data was missing or incomplete for several schools. Through this process, it was also determined that some schools had changed scheduling format in the past four years. New worksheets were designed to include only those schools that had complete data for all four years and had only used one kind of schedule – either block or traditional.

Once the schools with incomplete or conflicting data were eliminated, additional worksheets were generated to reflect the following comparisons:

1. Block Schools Fall 2005 versus Spring 2006
2. Traditional 2005/2006 versus Spring Block 2006

The primary demographics used for the schools included in the study are summarized by year in Tables 1.1 through 1.4. Each table shows the number of each type of school that was included in the study, the total enrollment, the average enrollment, the total enrollment of all of those instrumental music programs, the average enrollment, and the mean percentage of students enrolled in the programs of those schools during the school year listed.

The total public school enrollment of the state of Tennessee for the 2002-2003 was 958,496 students. Total schools found to be eligible for inclusion in this study based on the data reported from the state department were 208; 99 block and 109 traditional schools. Of the total number of students in Tennessee public schools included in this study, 18,250 participated in instrumental music during the 2002-2003 school year.

Small traditionally scheduled schools had the largest mean percentage of the school's total enrollment participating in their instrumental music programs during the 2002-2003 school year. The demographic data of the schools included in the study from the 2002-2003 school year is included in Table 1.1.

Table 1.1

School Information 2002-2003

Type of School	Number of Schools	Total School Enrollment	Average School Enrollment	Total Instrumental Enrollment	Average Instrumental Enrollment	Mean % of Total Enrollment
SB	32	15829	495	1338	42	0.0842
MB	45	43031	956	4049	90	0.0931
LB	22	34709	1578	2970	135	0.0828
AB	99	93569	1010	8357	89	0.0867
ST	34	16006	471	1789	53	0.1110
MT	32	28370	887	2589	81	0.0941
LT	43	66672	1551	5515	128	0.0824
AT	109	111048	969	9893	87	0.0958

The total public school enrollment of the state of Tennessee grew 14,674, (+1.5%) from the 2002-2003 school year to 973,170 students for the 2003-2004 school year. Of the total number of students in Tennessee public schools included in this study (208; 99 block and 109 traditional), 18,246 participated in instrumental music during the 2003-2004 school year. This number showed a net enrollment loss from 2002-2003 of only 4 students; a loss of 15 in the block schools and a gain of 11 students in the programs traditional scheduled schools. Small traditionally scheduled schools still maintained the

largest mean percentage of the school's total enrollment participating in their instrumental music programs during the 2003-2004 school year. Table 1.2 shows the demographic data of the schools included in the study from the 2002-2003 school year.

Table 1.2

School Information 2003-2004

Type of School	Number of Schools	Total School Enrollment	Average School Enrollment	Total Instrumental Enrollment	Average Instrumental Enrollment	Mean % of Total Enrollment
SB	32	15687	490	1262	39	0.0798
MB	45	42891	953	3980	88	0.0918
LB	22	35276	1603	3100	141	0.0858
AB	99	93854	1016	8342	90	0.0858
ST	34	16160	475	1635	48	0.1021
MT	32	29268	915	2765	86	0.0993
LT	43	66554	1548	5504	128	0.0830
AT	109	111982	1000	9904	89	0.0897

The total public school enrollment of the state of Tennessee grew 476 students from the 2003-2004 school year to 973,626 for the 2004-2005 school year. Of the total number of students in Tennessee public schools included in this study (208; 99 block and 109 traditional), 20,447 students participated in instrumental music during the 2004-2005 school year. This number showed an enrollment growth of 2201 total students (10.76%); 1233 in the block schools and 968 in the traditionally scheduled schools. Small traditionally scheduled schools still maintained the largest mean percentage of the school's total enrollment participating in their instrumental music programs during the

2004-2005 school year, however medium block and medium traditional schools also had comparable mean percentages in the 10% range -.1019 and .1009 respectively. The demographic data of the schools included in the study from the 2004-2005 school year is included in Table 1.3.

Table 1.3

School Information 2004-2005

Type of School	Number of Schools	Total School Enrollment	Average School Enrollment	Total Instrumental Enrollment	Average Instrumental Enrollment	Mean % of Total Enrollment
SB	32	16541	517	1443	45	0.0862
MB	45	45549	1012	4678	104	0.1019
LB	22	37773	1717	3454	157	0.0896
AB	99	99863	1082	9575	102	0.0926
ST	34	16690	491	1813	53	0.1073
MT	32	31739	992	3110	97	0.1009
LT	43	69695	1621	5949	138	0.0846
AT	109	118124	1062	10872	100	0.0947

The total public school enrollment of the state of Tennessee grew 2948 students from the 2004-2005 school year to 976,574 for the 2005-2006 school year. Of the total number of students in Tennessee public schools included in this study (208; 99 block and 109 traditional), 18,860 students participated in instrumental music during the 2005-2006 school year. This number reflected an enrollment loss of 1587 total students (-8.4%); 873 in the block schools and 714 in the traditionally scheduled schools. Small traditionally scheduled schools still maintained the largest mean percentage of the school's total

enrollment participating in their instrumental music programs during the 2005-2006 school year. In 2004-2005, medium block and medium traditional schools had posted mean percentages in the 10% range, comparable to the enrollment averages of small traditionally scheduled schools. With the enrollment losses of 2005-2006, these percentages return to their previous averages, closer to 8%. The demographic data of the schools included in the study from the 2004-2005 school year is included in Table 1.4.

Table 1.4

School Information 2005-2006

Type of School	Number of Schools	Total School Enrollment	Average School Enrollment	Total Instrumental Enrollment	Average Instrumental Enrollment	Mean % of Total Enrollment
SB	32	16875	527	1201	38	0.0706
MB	45	46252	1028	4089	91	0.0885
LB	22	38540	1752	3412	155	0.0870
AB	99	101667	1102	8702	94	0.0820
ST	34	17167	505	1789	53	0.1095
MT	32	32872	1011	2570	80	0.0812
LT	43	70617	1642	5799	135	0.0802
AT	109	120656	1081	10158	92	0.0905

Table 1.5 summarizes the mean percentages of the instrumental enrollment of the schools included in the study. Block school percentages are shown in comparison to traditional school percentages for each year studied. Although not subjected to specific statistical analysis, several interesting trends were noted:

- From 2002-2005, instrumental enrollment averages in the state peaked in the 2004-2005 school year for all block and traditionally scheduled schools, except for small traditional schools, which posted their largest enrollment average in 2002.
- Averages showed all schools, regardless of type of schedule or size of school, experienced enrollment gains between the 2003-2004 and 2004-2005 school years.
- The largest difference in enrollment averages (1.97%) was found in the medium-sized traditionally scheduled schools between the 2004-2005 and 2005-2006 school years.
- The 2005-2006 averages generated for the small traditionally scheduled schools reflected that they were the only size or type of school to experience an enrollment gain from the 2004-2005 school year.
- Small traditionally scheduled schools consistently reported the highest percentages of the school's population enrolled music programs.
- The lowest enrollment averages were found in the programs of small block schools. For statistical purposes, these schools were considered the opposite of the small traditionally scheduled schools, who consistently posted the highest program enrollment averages throughout the duration of the study.

Table 1.5

Average Percentage of Instrumental Enrollment

Type of School	Number of Schools	Mean % of Total Enrollment 2005-2006	Mean % of Total Enrollment 2004-2005	Mean % of Total Enrollment 2003-2004	Mean % of Total Enrollment 2002-2003
SB	32	0.0706	0.0862	0.0798	0.0842
MB	45	0.0885	0.1019	0.0918	0.0931
LB	22	0.0870	0.0896	0.0858	0.0828
AB	99	0.0820	0.0926	0.0858	0.0867
ST	34	0.1095	0.1073	0.1021	0.1110
MT	32	0.0812	0.1009	0.0993	0.0941
LT	43	0.0802	0.0846	0.0830	0.0824
AT	109	0.0905	0.0947	0.0897	0.0958

Analysis of Results

The instrumental enrollment percentages generated in Excel and included in these databases were used as the basis for the ANOVA results of this study. Smith's Statistical Package software for MAC OS X was used to calculate the following statistical results.

The first research question and hypothesis addressed whether block scheduling affected the number of students participating in the school's instrumental music programs between the fall and spring block semesters. Beginning in 2005-2006, schools using block scheduling report enrollment to the state in the fall and spring of each academic year. Four ANOVAS specific to this question were generated to test the significance of this question and related hypothesis. No statistical significance was found for any of the ANOVAS performed for this research question. The findings of no statistically significant difference between the fall of 2005 and the spring of 2006 enrollment numbers in this case support accepting the null hypothesis. Table 2 illustrates the ANOVA comparisons that were performed and serve to validate the acceptance of Hypothesis One.

Table 2

Fall 2005 versus Spring 2006 Block School ANOVAS

Type of School	# of Schools	Mean % Enrolled Fall 05	Fall 05 SD	Mean % Enrolled Spring 06	Spring 06 SD	dF	F Value	P Value
SB	32	.0706	.0340	.0618	.0322	65	1.3243	.2541
MB	45	.0885	.0621	.0754	.0579	89	1.0797	.3016
LB	22	.0870	.0659	.0793	.0627	43	.1600	.6912
AB	99	.0824	.0556	.0719	.0522	197	1.8912	.1706

The second research question and hypothesis addressed whether the size of school (small, medium, or large) on block scheduling reflected a statistically significant difference in the participation of students in the instrumental music programs in Tennessee. A variety of ANOVAS were performed to ascertain if the size of school affected the student participation of the instrumental music programs functioning under block scheduling. These ANOVAS focused on comparing the instrumental programs in block schools to similar size traditional schools from the 2002-2003 through the 2005-2006 school years. These comparisons consistently yielded no statistically significant results. Since the findings provided no statistically significant difference between schools related to size, the hypothesis should be accepted as true. There were no statistically significant differences in the participation of students in instrumental music in block schools related to the size of the school. Tables 3.1 through 3.4 illustrate the ANOVA comparisons that were performed and serve to validate the acceptance of Hypothesis Two.

Table 3.1 illustrates the relationship between the instrumental enrollments of block scheduled versus traditionally scheduled schools in the 2002-2003 school year based upon the size of the school. Although many comparisons were explored, the ANOVAS performed found no statistical significance related to the size of the school and schedule observed in the 2002-2003 school year.

2002-2003 Block versus Traditional Schools Instrumental Enrollment ANOVAS by Size

Size of School	# of Block Schools	Mean % Enrolled Block	Block SD	# of Trad Schools	Mean % Enrolled Trad	Trad SD	dF	F Value	P Value
Small	32	.0842	.0502	34	.1110	.0995	65	1.8647	.1769
Medium	45	.0931	.0586	32	.0941	.0610	76	.0047	.9457
Large	22	.0828	.0541	43	.0824	.0382	64	.0012	.9730

Table 3.2 illustrates the relationship between the instrumental enrollments of block scheduled versus traditionally scheduled schools in 2003-2004 based upon the size of the school. The ANOVAS performed found no statistical significance related to the size of the school and schedule observed in the 2003-2004 school year.

Table 3.2

2003-2004 Block versus Traditional Schools Instrumental Enrollment ANOVAS by Size

Size of School	# of Block Schools	Mean % Enrolled Block	Block SD	# of Trad Schools	Mean % Enrolled Trad	Trad SD	dF	F Value	P Value
Small	32	.0799	.0453	34	.1022	.1003	65	1.3243	.2541
Medium	45	.0918	.0525	32	.0993	.0744	76	.2732	.6027
Large	22	.0858	.0497	43	.0830	.0359	64	.0669	.7968

Table 3.3 illustrates the relationship between the instrumental enrollments of block scheduled versus traditionally scheduled schools in 2004-2005 based upon the size of the school. The ANOVAS performed found no statistical significance related to the size of the school and schedule observed in the 2004-2005 school year.

2004-2005 Block versus Traditional Schools Instrumental Enrollment ANOVAS by Size

Size of School	# of Block Schools	Mean % Enrolled Block	Block SD	# of Trad Schools	Mean % Enrolled Trad	Trad SD	dF	F Value	P Value
Small	32	.0862	.0595	34	.1073	.1198	65	.8050	.3730
Medium	45	.1020	.0604	32	.1009	.0777	76	.0051	.9434
Large	22	.0897	.0557	43	.0847	.0428	64	.1616	.6890

Table 3.4 illustrates the relationship between the instrumental enrollments of block scheduled versus traditionally scheduled schools in 2005-2006 based upon the size of the school. ANOVAS found no statistical significance related to the size of the school and schedule observed in the 2005-2006 school year.

Table 3.4

2005-2006 Block versus Traditional Schools Instrumental Enrollment ANOVAS by Size

Size of School	# of Block Schools	Mean % Enrolled Block	Block SD	# of Trad Schools	Mean % Enrolled Trad	Trad SD	dF	F Value	P Value
Small	32	.0706	.0340	34	.1095	.1060	65	3.9246	.0519
Medium	45	.0885	.0621	32	.0812	.0443	76	.3316	.5665
Large	22	.0870	.0659	43	.0809	.0390	64	.2237	.6379

The third research question and hypothesis addressed the effects of the type of schedule (traditional or block) on the participation of students in the instrumental music programs in Tennessee. Block schools generally provide students the opportunity to earn one credit per semester rather than one credit per year in traditional scheduling. Considering this, ANOVAS were explored to assess any differences in enrollment between the annual enrollment in traditional programs and the semester changes often experienced by programs on block scheduling. By comparing changes in the enrollment percentages between block and traditionally scheduled schools between semesters, it is possible to assess the effects of block scheduling on the instrumental programs in these schools. ANOVAS were used to assess any possible differences between the enrollment percentages during the spring semester of the block instrumental programs to the enrollment percentages of the programs in traditional schools reported for the 2005/2006 school year.

Although many comparisons were made, two ANOVA calculations related to the exploration of this hypothesis returned a statistically significant response. The first result supported the differences found between the enrollment of programs in small block schools in the spring semester of 2006 and the annual enrollment numbers for small traditional schools in 2005-2006. The differences in these enrollments were statistically significant at the $p < .05$ level of .0175. Small block schools spring 2006 enrollment losses were significant when compared to the small traditional schools 2005/2006 enrollment. This finding supports the rejection of Hypothesis Three.

Even more important was the ANOVA result that supported the differences found between the enrollment figures of all block schools in the spring of 2006 and the enrollment in all traditional school programs for the school year of 2005-2006. The differences in the enrollments of these programs was found to be statistically significant at the $p < .05$ level of .0362. The enrollment losses of all of the block schools in the spring of 2006 was significant at this level when compared to their traditionally scheduled counterparts for the 2005/2006 school year. This serves to provide further support for rejecting Hypothesis Three. Table 4 illustrates the ANOVA comparisons that were performed to test Hypothesis Three.

Table 4

ANOVAS of Type of Schedule Using Spring 2006 Block Schools versus 2005/2006

Traditional Schools Instrumental Program Comparisons

Type of School	# of Block Schools	Mean % Enrolled Spring Block	Spring Block SD	# of Trad Schools	Mean % Enrolled Annual Trad	Annual Trad SD	dF	F Value	P Value
Small	32	.0618	.0322	34	.1095	.1060	65	5.9533	.0175*
Medium	45	.0754	.0579	32	.0812	.0443	76	.2245	.6370
Large	22	.0793	.0627	43	.0809	.0390	64	.0161	.8993
All	99	.0719	.0522	109	.0899	.0690	207	4.4433	.0362*

Note: * $p < .05$

The statistical findings and ANOVA analysis would support the rejection of one of the three null hypotheses that are the basis of this research. Based upon the results of the answers to the research questions, two of the three null hypotheses would be accepted for this study:

1. Block scheduling has had no effect on the participation of students between the fall and spring block semesters in high school instrumental music programs in Tennessee.

Statistical analysis would indicate that this be accepted.

2. The size of school (small, medium, large) on block scheduling has had no effect on the participation of students in instrumental music programs in Tennessee.

Statistical analysis would indicate that this be accepted.

3. The type of schedule observed has had no effect on the participation of students in instrumental music programs in Tennessee.

Statistical analysis would support the rejection of this hypothesis.

CHAPTER V

DISCUSSION

Education continues to be closely scrutinized under the budget constraints and tax issues faced by the state of Tennessee in the past decade. Considering the requirements of initiatives such as No Child Left Behind (NCLB) and the Tennessee Basic Education Program (BEP), emphasis has shifted to those areas of the curriculum that are the subject of high stakes testing. Scheduling is but one of many considerations utilized by administrators and school boards in an attempt to provide a better environment in which to teach and learn. We are constantly searching for ways to motivate students, improve test scores, and increase graduation rates. As education has pursued various methods in search of reformation, music programs have suffered budget shortfalls, program cuts, reduction in music faculty, elimination of courses, and scheduling conflicts. In order to assess the effect of at least one of these strategies, alternative scheduling, this study has focused on the enrollment in instrumental music programs in the state of Tennessee and the effects of block scheduling on those classes.

The results of this study showed no statistically significant differences between the enrollment in the instrumental music programs of block schools between the fall and spring semesters of 2005-2006. This was also the case for the comparison of programs related to the size of school on block scheduling. These findings resulted in the acceptance of the first two hypotheses of the study:

1. Block scheduling has had no effect on the participation of students between the fall and spring block semesters in high school instrumental music programs in Tennessee.

2. The size of school (small, medium, large) on block scheduling has had no effect on the participation of students in instrumental music programs in Tennessee.

The difference between the enrollment of all block schools in the spring and annual enrollment of all traditional schools was found to be statistically significant. Additional statistical significance was found between small block schools and traditional small schools in the 2005-2006 academic year. It was interesting that the medium and large schools did not show a statistical significant result; however, the small schools did show a very significant result of $p = .0175$. This may be due to the fact that even the loss of one student can be significant in smaller programs. The loss of students at the semester break, although pervasive in block schools, did not yield enough numbers to be statistically significant for the medium and large programs as groups. When combined together for analysis with the small schools, the total difference also yielded a statistically significant result of $p = .0362$. The results of these ANOVA analyses led to the rejection of Hypothesis Three: The type of schedule observed has had no effect on the participation of students in instrumental music programs in Tennessee.

Although the differences in the fall and spring block enrollment numbers were not found to be statistically significant, the number of block schools experiencing a loss of enrollment between semesters was an interesting trend. Only 18 schools reported unchanged enrollment in the same manner as traditionally scheduled schools throughout the 2005-2006 school year. Thirteen programs gained, while 68 schools lost enrollment. The enrollment numbers alone may not be statistically significant, but the fact that this many schools lost enrollment may indicate an important area for further study.

Enrollment issues of this nature may account for the concerns of many instrumental directors in the state that block scheduling is causing them to 'lose kids.' Instrumental ensemble directors typically recruit vigorously for their programs; however the data provided by the state does not reflect the gains expected. If the number of students in our state is rising, why aren't the numbers of students enrolled in instrumental music classes? Further interpretation of this data supports the idea that programs may recoup enough students each fall to maintain the status quo, but the enrollment losses from the previous spring semester are never recovered to the point that most schools can experience growth in the long term. If this is the case, the type of schedule does effect student participation in instrumental programs in Tennessee – adversely.

The enrollment game is a never-ending concern for instrumental music educators. These programs face constant scrutiny, not only by parents and the community, but also by administrators and central office supervisors who ultimately make decisions that affect the future of the program. Administrators often tell directors that they should maintain a certain percentage of the school in their programs, usually 10%. Data in this study reflects that in the 2005-2006 school year only 25% of the schools in the state have that percentage of students participating in their instrumental ensembles. This figure has been similar for the past four years. The 10% figure is an excellent goal, however, those numbers may not be realistic in today's schools. With ever increasing testing mandates, increasing graduation requirements, and changes in today's society as a whole, directors are now focusing more than ever before on maintaining the quality of their ensembles – as well as the number of students participating. Their positions and programs depend

upon it. If scheduling affects the quality, as well as quantity, then close scrutiny should be provided regarding how and when these classes are scheduled in the school day.

A final consideration discussed by many instrumental ensemble directors on block schedule is the lack of consistency when students are not enrolled for continuing block semesters. Directors often express concerns regarding the continuity of instruction, the ensemble's performance quality related to beauty of sound, blend, and balance, as well as the consistency of skill development by students only enrolled one semester per year. These concerns cannot be quantified by this study; however, the inconsistencies in the enrollment numbers do provide insight into director concerns and challenges in providing a quality educational experience for all of the students in the program. These concerns merit further qualitative study. Unlike an English or math class, individual students in instrumental music classes do depend upon the participation and ability of their peers in order to provide a quality experience for everyone. As a cooperative learning experience, the loss of enrollment impacts everyone in the program in many ways - aesthetically, financially, and administratively. Fewer teacher positions, budget cuts, and program eliminations are all inevitable results of dwindling enrollment numbers and negatively impact music programs in our state. In order to mitigate these losses in the future and provide solid evidence for its positive effects on student learning, further scholarly research should be pursued. Additional quantitative and qualitative research is necessary to provide continued support of the inclusion of music education as an important part of Tennessee's public school curriculum.

This study has shown the need for further study regarding enrollment and scheduling of instrumental music ensemble classes in schools. Little scholarly research

exists on this topic. Data from this study shows trends that would indicate problems with scheduling and inconsistent enrollment – what is actually responsible for this? Further study should focus on this concern, as well as other factors that may adversely affect instrumental music classes and their enrollment. Once we have lost these classes in our schools, it is nearly impossible to rebuild a quality program. A need exists for music educators to become more proactive advocates for their programs. Continued research of issues affecting music education is vital to maintaining quality programs and future opportunities for the students of Tennessee and our nation.

- Blocher, L., & Miles, R. (1996). *Block scheduling: implications for music education*. Springfield, Ill.: Focus on Excellence.
- Canady, R. L. & Rettig, M. D. (2001, November). Block scheduling: more benefits than challenges. Response to Thomas (2001). *NASSP Bulletin*, 85(628), 78-86.
- Corley, E. L. (2001, October). *Block scheduling: three years later*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. 479333)
- Creamean, S., & Horvath, R. (2000). *The effectiveness of block scheduling*. Paper presented as partial fulfillment of the Master of Arts Action Research Project, Saint Xavier University, Chicago, IL. (ERIC Document Reproduction Service No. 452615)
- Deuel, L. (1999, October/November). Block scheduling in large, urban high schools: effects on academic achievement, student behavior, and staff perceptions. *The High School Journal*, 83(1), 14-25.
- Evans, W., Tokarczyk, J., Rice, S., & McCray, A. (2002, August). Block scheduling: an evaluation of outcomes and impact. *The Clearing House*, 75(6), 319-23.
- Retrieved October 5, 2004 from Education Full Text database.
- Hall, G. (1992). *The effects of the four period day on Colorado high school performing arts classes*. A descriptive study presented to the faculty of the Division of Graduate Studies, Adams State College, Alamosa, CO.

- Hassenzflug, A. (1999, October). An art teacher's view of block scheduling: a less enthusiastic opinion. *NASSP Bulletin*, 83(609), 86-94.
- Griffin, L., & Nicholson, J. Jr. (2002). *An evaluation of the block schedule in two high schools*. Paper presented at the Mid-South Education Research Association annual meeting, Chattanooga, TN. (ERIC Document Reproduction Service No. 471297)
- Kenney, L. C. (2003, October). Back from the block—or not? *School Administrator*, 60(9), 21-25.
- Kienholz, K., Segall, N., & Yellin, D. (2003, Winter). The block: implications for secondary teachers. *Kappa Delta Pi Record*, 39(2), 62-5.
- Lawrence, W., & McPherson, D. (2000, Spring). A comparative study of block scheduling and traditional scheduling on academic achievement. *Journal of Instructional Psychology*, 27(3), 178-82.
- McCoy, M. (1998, January). *Block scheduling: does it make a difference? A high school case study*. Paper presented at the annual meeting of the Southwest Educational Research Association, Houston, TX. (ERIC Document Reproduction Service No. 420106)
- McCoy, M. & Taylor, D. (2000). *Does block scheduling live up to its promise?* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. 443181)

- Metzker, B. (2003, March). *Time and learning. Eric Digest Number 166*. Sponsored by the Office of Educational Research and Improvement, Washington, DC. (ERIC Document Reproduction Service No. 474260)
- Mowen, C. (2004, April). To block schedule or not? *The Education Digest*, 69(8), 50-3.
- National Education Commission on Time and Learning (1994). *Prisoners of time: Report of the National Education Commission on Time and Learning*. Washington, DC: U.S. Government Printing Office.
- Newman, I., & Trenta, L. (2002, Fall). Effects of a high school block scheduling program on students: a four-year longitudinal study of the effects of block scheduling on student outcome variables. *American Secondary Education*, 31(1), 54-71.
- Northeast and Inlands Regional Educational Lab at Brown University. (1998). *Block scheduling: Innovation with time. Themes in Education Series*. Providence, RI. (ERIC Document Reproduction Service No. ED 427431)
- Phillips, J. (1999). *Implications of the 4 X 4 block schedule on high school students*. Unpublished EDS field study, Austin Peay State University, Clarksville, TN.
- Pisapia, J., & Westfall, A. L. (1997). *Alternative high school scheduling: a view from the teacher's desk*. Metropolitan Educational Research Consortium, Richmond, VA. (ERIC Document Reproduction Service No. 411335)
- Queen, J. A. (2000, November). Block scheduling revisited. *Phi Delta Kappan*, 82(3), 214-22.
- Rettig, M., & Canady, R. (1996). All around the block: the benefits and challenges of a nontraditional school schedule. *School Administrator*, 53, 8-14.

- Reffig, M. D., & Canady, R. L. (2003, October). Block scheduling's missteps, successes and variables. *School Administrator*, 60(9), 26-31.
- Schultz, R. (2000, September/October). Examining the effects of block scheduling on gifted and talented students. *Gifted Child Today*, 23(5), 24-33.
- Sichivitsa, V. (2003, Winter). College choir members' motivation to persist in music: Application of the Tinto Model. *Journal of Research in Music Education*, 51(4), 330-41.
- Stader, D., & DeSpain, B. (1999). *Block scheduling in Missouri: a study of administrator and teacher perceptions*. Paper presented at the annual meeting of the National Council of Professors of Educational Leadership, Jackson, WY. (ERIC Document Reproduction Service No. 444269)
- Stanley, A., & Gifford, L. (1998). *The feasibility of 4 X 4 block scheduling in secondary schools: a review of the literature*. Paper presented at the annual meeting of the Mid-South Education Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. 429333)

APPENDIX

IRB APPROVAL LETTER

AP
Austin Peay
State University
College of Graduate Studies

January 24, 2006

Robbin Johnston
967 Gratton Road
Clarksville, TN 37043

RE: Your application regarding study number 05-074: The Effects of Block Scheduling on Instrumental Music Programs in Middle Tennessee

Dear Robbin Johnston,

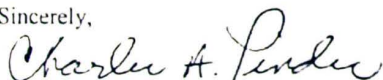
Thank you for your recent submission. We appreciate your cooperation with the human research review process. I have reviewed your request for expedited approval of the new study listed above. This type of study qualifies for expedited review under FDA and NIH (Office for Protection from Research Risks) regulations.

Congratulations! This is to confirm that I have approved your application through one calendar year. This approval is subject to APSU Policies and Procedures governing human subject research.

You are granted permission to conduct your study as described in your application effective immediately. The study is subject to continuing review on or before January 24, 2007, unless closed before that date. Enclosed please find the forms to report when your study has been completed and the form to request an annual review of a continuing study. Please submit the appropriate form prior to January 24, 2007.

Please note that any changes to the study as approved must be promptly reported and approved. If you have any questions or require further information, contact me at (221-7415; fax 221-7641; email pinderc@apsu.edu). Again, thank you for your cooperation with the APSU IRB and the human research review process. Best wishes for a successful study!

Sincerely,



Charles A. Pinder, Ph.D.
Chair, Austin Peay Institutional Review Board
cc: Dr. Donald Luck

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VITA

Robbin Lynn Gibbons Johnston was born in Baltimore, Maryland on September 21, 1964. Her family moved to southern West Virginia in 1978 where she completed her public school education at Independence High School in Coal City, West Virginia in 1982. She attended West Virginia Institute of Technology in Montgomery, West Virginia and graduated summa cum laude with her Bachelor's of Science in Music Education in May 1986. Her first teaching position was the Director of Bands at Trap Hill Middle School in Surveyor, West Virginia from 1986 to 1989. Upon her husband's assignment to the 101st Airborne Division (Air Assault) Army Band at Fort Campbell, Kentucky, she accepted the position of Director of Bands at Greenwood Middle School in Clarksville, Tennessee in 1989. In 1990, she transferred to Northeast Middle School as the Director of Bands and remained there until 1995. Since 1995, she has served in the position of Director of Bands at Clarksville High School and is an active music educator in local, state, and national organizations.

In 2002, she entered Austin Peay State University to pursue her Master's in Music with an emphasis in Instrumental Conducting. Having completed her Masters degree in 2003, she continued her education at Austin Peay from the summer of 2004 through 2006, earning her Education Specialist degree with an emphasis in Administration and Supervision.