

CHAPTER I

INTRODUCTION

In 1983 the National Commission on Excellence in Education recommended in its' report *A Nation at Risk* that school districts and state legislatures give consideration to increasing the time children spend in school through the implementation of longer days or school years (Picus, 1994). Eleven years later, the National Education Commission on Time and Learning (1994) contended that the amount of time in the school day and the number of days in the school year were constraints for public school systems. As public school systems attempt to respond to an increased call from the public and politicians for accountability, there exists a need for schools to be more effective using the hours and days available.

The time available in a traditional six-hour day and a 180-day year is an acknowledged design constraint in American education (National Education Commission of Time and Learning, 1994). In an attempt to counter this problem, some school divisions have implemented alternative calendar models that allow more hours in a school day or more days in a school year. Unfortunately, in only a few instances have schools in Virginia received the public support required to significantly lengthen the school year or day (Virginia Department of Education, 1992).

How can schools structure the school day or school year to maximize learning? In 1973 Parry McCluer High School in Buena Vista City, Virginia, offered an optional fourth quarter for students to increase achievement (National Education Commission of Time and Learning, 1994). In 1996 the Detroit (Michigan) Public School System designed an Extended School Year Program to demonstrate that lengthening the school year would produce corresponding changes in student achievement as measured by the Michigan Educational Assessment Program and the Metropolitan Achievement Test (Axelrad-Lentz). In 1997 the Board of Education of the Durham (North Carolina) Public Schools passed a policy that required all students performing below grade level on the Eighth Grade Competency Test in either reading or mathematics to attend an 18-day summer school. Students were to attend the session and demonstrate progress in order to be eligible for promotion to the next grade (Haenn, 1999).

In 1998, school administrators designed an Extended School Year program at L. Douglas Wilder Middle School that was to utilize time during the summer months to improve skill levels for the students who chose to participate.

Program History

The Extended School Year Program at L. Douglas Wilder Middle School was first initiated in the summer of 1998. The program was designed to accomplish four goals: 1) To extend student learning beyond the school year with an emphasis on application of skills; 2) To provide a concentrated, focused program to accelerate and improve student achievement in reading, writing, and math measured by individual grades as well as the Literacy Passport Test, Stanford 9, and Standards of Learning testing; 3) To improve student attendance; and 4) To develop student leadership and applied problem-solving skills (Henrico County, 1998 “p” 2). The program lasted four weeks and two days. Each day began at 8:00 a.m. and ended at 3:00 p.m.

For one year prior to piloting the Extended School Year Program, the principal, math and English curriculum specialists, and teachers met with the superintendent and other members of his staff to design a plan for an Extended School Year Program. This meeting occurred after an editorial appeared in the Richmond Times Dispatch on March 6, 1997. In the column, the editor wrote; “Our calendar for schools was designed from an agrarian calendar utilized in times that promoted kids being home to assist with harvesting crops” (Extending, 1997 p. A12).

A request to the community and to the schools’ new administration to begin a pilot Extended School Year Program originated from the superintendent with a view toward addressing the needs of the large number of at-risk students attending the middle school. In addition, the superintendent articulated his desire to move the Extended School Year Program into other middle schools within the district to address the needs of their at-risk populations. A design committee was formed to create an Extended School Year Program. The committee included the principal, teachers representing each area covered, the curriculum specialist, and the directors of instruction and research and planning.

Extended School Year Program Description

The principal and a team of teachers from L. Douglas Wilder along with the English, math, science, and social studies curriculum specialists collaborated in designing

and organizing the 1998 Extended School Year Program. The design and organizational structure were created with a view toward promoting student learning through the application of knowledge and thematic instruction.

The program included a module approach to instruction so students would experience a connection from one subject to another. After completing module designs, pretests and posttests were developed. Modules were created around subject themes. The modules were: “Images and designs,” “Exploring Hype,” “Environment,” and “Competitions.” Students attended a module in the morning and one in the afternoon. Each module lasted two weeks and included a reading portion, language-writing portion, mathematics portion, and science portion. Each module contained 30 students.

Prior to the start of the program, considerable planning was done to target appropriate Standards of Learning (SOL) objectives and create connections among all activities in the areas of math, reading, and writing. Instructional activities, including cooperative learning, thematic instruction, field experiences and physical activity, were also designed.

Teachers were selected based on their instructional style, flexibility, and their ability to work effectively with at-risk students. Teachers were recommended to work in the program by their educational specialist or building administrators. Staffing for the program was approved for one teacher for every 15 students.

Pretests and posttests were used to evaluate student performance after attending the Extended School Year Program. The initial day of the program was used to administer a test in math, reading, and writing to determine the skills of each student. Testing was repeated on the final day to determine if gains were made.

Minimal gains in math, modest gains in reading, and substantial gains in writing resulted from the 1998 Extended School Year Program. The average gain in math was one point from pretest to posttest. In reading, the average gain from pretest to posttest was a little less than ten points. In writing, the average gain from pretest to posttest was nearly 32 points (see Table 1).

Table 1

1998 Extended School Year Program Testing Results

	<u>Pretest mean score</u>	<u>Posttest mean score</u>	<u>Difference</u>
Math	32.4	33.4	1.0
Reading	39.6	49.1	9.5
Writing	36.7	68.3	31.6

Note. ESY Math Pre-Post Test, ESY Reading Pre-Post Test, and ESY Writing Pre-Post Test

The 1999 Extended School Year Program was similar in design to the 1998 program with several exceptions. The 1999 Extended School Year Program was larger. It had 125 students and eight teachers. The 1998 program had 55 students and 5 teachers. The 1999 program lasted six weeks (two three-week sessions) instead of the four weeks for the 1998 program. The 1999 program lasted from 8:00 a.m. to 12:30 p.m. The 1998 program lasted from 8:00 a.m. to 3:00 p.m. There were also two three-week sessions.

One of the three-week sessions included activities that integrated English and social studies. This session was team planned and team taught and utilized an integrated curriculum. English and social studies were combined because their curriculum specialists felt reading, writing, and social studies could be taught successfully in an integrated approach. The session included historical fiction; vocabulary within context; reading comprehension skills using maps, charts, and diagrams; test-taking strategies; and writing. This session lasted from 8:00 a.m. to 12:30 p.m. for three weeks. Rising sixth and seventh graders were combined into one section. Rising eighth graders were separated because of the different skills required.

The other three weeks were divided into science and mathematics sessions. Each of these sessions lasted from 8:00 a.m. to 10:05 a.m. or 10:25 a.m. to 12:30 p.m. Students attended both sessions daily for three weeks. Each session utilized a hands-on approach to learning. In math, teachers emphasized solving algebraic equations; math vocabulary; reading comprehension using graphs, tables, and diagrams; critical thinking; and patterns. In science, instruction focused on experimental design; vocabulary; reading

comprehension using graphs, tables, and diagrams; critical thinking; laboratory investigations; and test-taking strategies. Instruction in the math and science sessions was focused on developing skills to prepare students for the 8th grade Standards of Learning tests. Rising sixth, seventh, and eighth graders were combined for both the math and science modules.

Any rising sixth, seventh, or eighth grader from Wilder Middle School or an elementary feeder school was eligible to participate if they (1) passed both the English and mathematics courses but failed the appropriate SOL or county assessment test and (2) failed either a science or a social studies course or failed the appropriate SOL or county assessment test. Reading, social studies, science, and math pretests were given to all students at the beginning of the program to determine skill level and weaknesses. At the conclusion of each three-week session, students completed posttests to measure gains. All tests used in the program are described in detail in Chapter 3.

Program Goals

The 1999 Extended School Year Program had four goals:

1. To extend and reinforce student learning beyond the regular school year.
2. To provide a focused program of studies to strengthen student achievement in English, social studies, mathematics, and science.
3. To actively engage students in the learning process through minds-on and hands-on instruction.
4. To increase student - teacher dialogue through small class size.

The assistant superintendent of instruction and the director of instruction established the goals of the program.

Changes in the 1999 program were based on an analysis of student results from the 1998 Extended School Year Program. The changes were also based on a need to match the Extended School Year Program more closely to remedial programs prescribed by the Virginia Department of Education. Standard 1.C of the Virginia Department of Education Standards of Quality states in part:

Local school boards shall also develop and implement programs of prevention, intervention, or remediation for students who are educationally at risk, including, but not limited to, those whose scores are in the bottom national

quartile on Virginia State Assessment Program Tests, who do not pass the literacy passport test prescribed by the Board of Education, or who fail to achieve a passing score on any Standards of Learning assessment in grades three, five, and eight. (Stapleton, 1999)

Problem Statement

While school divisions have experimented with alternative patterns for arranging instructional time, researchers have generally concluded that simple increases in the school day or year, without corresponding reform in the quality of instruction, may produce only a modest, if any effect, on student achievement (Moore & Funkhouser, 1990). This finding raises the question: Will the components of the Extended School Year Program, designed to offset academic weaknesses around the concept of “extended time,” have any effect on participating students? More importantly, is the Extended School Year Program an effective program for participating students as measured by outcomes in English, social studies, science, and math?

Conceptual Model

The conceptual model for this study is in Figure 1. The model contains components of the Extended School Year Program that will be evaluated. Some of the components were reinforced by researchers (Aronson, Zimmerman, & Carlos, 1999; Herman & Stringfield, 1997; Walberg, Niemiec, & Frederick, 1994; and Wehlage, Rutter, & Turnbaugh, 1987) who suggested that successful programs for students include a focus on instruction utilizing skill application. Other researchers (Carroll, 1985; Karweit & Slavin, 1981; Haenn, 1999) suggested that time students spend in school could improve student achievement. Milgram (1992) discussed the importance of considering characteristics of middle-level students when designing programs to address their needs.

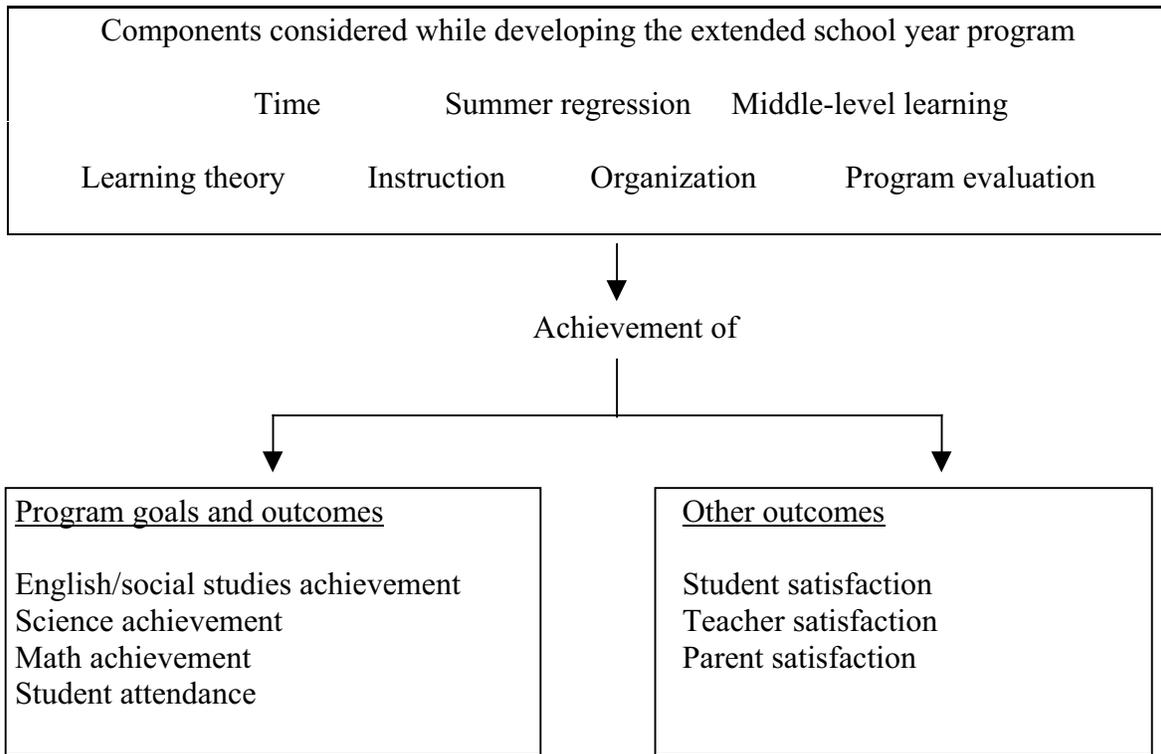


Figure 1. Conceptual model of program components and expected outcomes.

Theorist Bruner (1965) and Jordon (1993) discussed the importance of creating an organizational structure to support mastery learning. Researchers Cooper, Nye, Charlton, Lindsay, and Greathouse (1996) indicated that achievement scores declined over summer vacation. Hermann & Stringfield (1997) cited preventing summer learning loss as a reason for implementing extended school year programs. In addition to studying these areas, program goals and outcomes and student, teacher, and parent satisfaction with the program were evaluated.

Research Questions

The following are research questions for this study:

1. How effective is the Extended School Year Program in relation to student achievement in sixth grade English-social studies as measured by the difference between pretest and posttest scores?
2. How effective is the Extended School Year Program in relation to student achievement in seventh grade English-social studies as measured by the difference between pretest and posttest scores?
3. How effective is the Extended School Year Program in relation to student achievement in math as measured by the difference between pretest and posttest scores?
4. How effective is the Extended School Year Program in relation to student achievement in science as measured by the difference between pretest and posttest scores?
5. How effective is the Extended School Year Program in relation to student attendance?
6. How satisfied are students with the Extended School Year Program?
7. How satisfied are teachers with the Extended School Year Program?
8. How satisfied are parents with the Extended School Year Program?

Definition of Terms

Constitutive and operational definitions are in Table 2.

Table 2
Definitions of Terms

Concept	Definition	
	Constitutive	Operational
Attendance	The number of days present for each student for the duration of the program.	The aggregate daily membership ÷ number of days in session.
English-social studies achievement	The measurement of English-social studies skills on a test created by the English and Social Studies specialist to resemble the state SOL test.	Difference from pretest to posttest on the English-social studies test.
Math achievement	The measurement of math skills on a test created by the math curriculum specialist to resemble the state SOL test.	Difference from pretest to posttest on the math test.
Science achievement	The measurement of science skills on a test created by the science specialist to resemble the state SOL test.	Difference from pretest to posttest on the science test.
Parent satisfaction	The degree to which parents were satisfied with the schedule, communication, instruction, transportation, satisfaction with the program, and cost.	The parents score on the student satisfaction survey (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).

(table continues)

Table 2 (continued)

Concept	Definition	
	Constitutive	Operational
Student satisfaction	The degree to which students were satisfied with the schedule, instruction, transportation, discipline, teachers, the program, and technology	The students score on the student satisfaction survey (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).
Teacher satisfaction	The degree to which teachers enjoyed working in the program.	The categories and themes that emerged from the focus group responses.

Significance of the Study

The purpose of this evaluative study was to determine the effectiveness of the Extended School Year Program. This study was also designed to allow the researcher to measure other program outcomes. The researcher gathered program data that was used in determining whether the program was to be continued based upon student achievement and stakeholder satisfaction. The goal of an evaluation on any instructional program is to render judgments about the value of whatever is being evaluated (Worthen, Sanders, & Fitzpatrick, 1997). Thus, understanding how additional instructional time affected achievement gains is especially important because time use is a resource that can be manipulated by teachers (Karweit and Slavin, 1981). Since the program served as a pilot program that was replicated in other schools, this evaluation provided recommendations for similar programs in other middle schools.

Summary

An introduction, program history, a description of the Extended School Year Program, program goals, a conceptual model, a problem statement, research questions, definitions of terms, and , the significance of the study were presented in Chapter I. Chapter II is a review of related literature for this study. Chapter III contained the methodology that was used including the setting, populations, data collection, and data analysis. Chapter IV contained results of the analyses of the research questions. Chapter V contained a conclusion and discussion of the results reported in Chapter IV. Also contained in Chapter V were study limitations and recommendations for future research.