## Determining the Effectiveness of Time for Extra-Help

Built into the School Day

A Special Project

Presented to

Dr. Robert P. Kraig

Heritage University

In Partial Fulfillment

of the Requirement for the Degree of

Master of Education

Carla D. Estrada

## FACULTY APPROVAL

## Determining the Effectiveness of Time for Extra-Help Built into the School Day

A Master's Special Project

by

Carla Estrada

Approved for the Faculty

\_\_\_\_\_, Dr. Robert P. Kraig

\_\_\_\_\_, Date

## ABSTRACT

Title

Researcher: Carla Estrada, B.A. in Ed., CWU M.Ed., Heritage University

Chair Advisory Committee: Robert P. Kraig, PhD. Grades were analyzed of 506 seventh grade students in Spanaway,

Washington. One of the school initiatives was to provide extra-help within the school day which changed the minutes of academic classes. Staff and school district personnel wanted to know if this time was making an impact on meeting academic standards as measured by student grades. In this study the hypothesis that failing grades would decrease with the implementation of extra-help was not supported. The results and educational implications are discussed in this study.

## PERMISSION TO STORE

I, Carla Estrada, hereby irrevocably consent and authorize Heritage University Library to file the attached Special Project entitled, *Determining the Effectiveness of Time for Extra-Help Built into the School Day*, and make such Project and Compact Disk (CD) available for the use, circulation and/or reproduction by the Library. The Project and CD may be used at Heritage University Library and all site locations. I state at this time the contents of this Project are my work and completely original unless properly attributed and/or used with permission.

I understand that after three years the printed Project will be retired from the Heritage University Library. My responsibility is to retrieve the printed Project and, if not retrieved, Heritage University may dispose of the document. The Compact Disc and electronic file will be kept indefinitely.

> Carla Estrada, Author August 27, 2010, Date

## TABLE OF CONTENTS

Page
FACULTY APPROVALii
ABSTRACTiii
PERMISSION TO STOREiv
TABLE OF CONTENTSv
LIST OF TABLESviii
LIST OF FIGURESviii
CHAPTER 11
Introduction
Background for the Project1
Statement of the Problem1
Purpose of the Project
Delimitations
Assumptions
Hypothesis
Null Hypothesis4
Significance of the Project4
Procedure4
Definition of Terms5
Acronyms7

# Page

CHAPTER 2	9
-----------	---

Review of Selected Literature	9
Introduction	9
Adequate Yearly Progress	9
Drop Out Prevention	11
Middle School Purposes	13
Middle School Transition	14
Summary	15
CHAPTER 3	17
Methodology and Treatment of Data	17
Introduction	17
Methodology	17
Particpants	18
Instruments	18
Design	19
Procedure	20
Treatment of the Data	21
Summary	21
CHAPTER 4	23
Analysis of the Data	23
Introduction	23
Description of the Environment	23
Hypothesis/Research Question	24
Null Hypothesis	24
Results of the Study	24

Findings	27
Discussion	
Summary	28

CHAPTER 5	30
Summary, Conclusions and Recommendations	30
Summary	30
Conclusions	30
Recommendations	31
REFERENCES	33
SUPPLEMENTAL REFERENCES	34
APPENDIX	37

## LIST OF TABLES

	Page
Table 1, Seventh Grade Failing Grades	5
Table 1, Distribution of t with 504 Degrees of Freedom	27

## LIST OF FIGURES

	Page
Figure 1. Summary of <i>t</i> -test for Independent Samples	25
Figure 1. Line Graph Comparing the Means for Group X and Group Y	

## CHAPTER 1

## Introduction

## Background for the Project

Passing courses in high school is key to earning the required credits to graduate. Even states with graduation or exit exams require students to pass their courses to graduate. Thus, middle grade students who have difficulty passing their courses are directly signaling difficulty with the most salient factor in determining whether they will graduate (Balfanz 2009 p. 5).

In the above statement by Balfanz, he brought to light what many in the era of No Child Left Behind (NLCB) do not measure which is the passing of classes. Much attention is given to a yearly standardized test, attendance, and on time graduation rates. However, students who do not pass their classes can not earn the credits they need to matriculate. In fact, drop out rates have remained the same for about the last thirty years (Heckman, J., & LaFountaine, P. 2007).

The passing of classes was critical to on time graduation for students. The focus of the study was based on research that challenges schools to study data related to course passage in order for students to meet graduation requirements.

#### Statement of the Problem

With the passage of No Child Left Behind (NLCB), many districts have found that their schools were not making Adequate Yearly Progress (AYP). In the 2008-2009 school year, Bethel School District had 2 out of the 24 schools make AYP. None of which were secondary schools. All schools in the district were now required by the district to have a School Improvement Plan (SIP). In addition to the SIP, the secondary

schools were working with the Southern Regional Education Board (SREB) which provided a Technical Assistance Visitation (TAV) to each secondary school. Bethel Junior High received a TAV in the spring of 2009. The TAV had several recommendations; one of the recommendations was time for extra help during the school day. In addition to this feedback, the district greatly reduced the budget. Stipends and timesheets for extra help after school were eliminated. Bethel staff and administrators had to find time to give extra help during the school day while also balancing instructional time and other school board directed time.

The Bethel Junior High staff worked on a schedule that included a study hall four times a week. Students were in their advisory classes for a built in half hour study hall. During this time students and teachers made arrangements to be pulled from their regular study hall and come to their class to receive extra instruction. The building in of a daily study hall time called DAWG (Dedication Attitude Work ethic Growth) time was Bethel Junior High's plan of implementing extra help within the school day.

Data for this extra help time was being collected by the Bethel Junior High administrators to monitor the effectiveness of this time built into the schedule. The district administration, school staff, parents, and students needed feedback to see if this time is beneficial to students. Also, other junior highs in the district were looking to see if this time for extra help should be built into their schedules. One of the pieces of data that was being collected is student grades.

Phrased as a question, the problem which represented the focus of the present study may be stated as follows: To what extent did 7<sup>th</sup> grade grades improve after implementing the DAWG time at Bethel Junior High?

## Purpose of the Project

The purpose of this quantitative, experimental research study was to determine the extent to which seventh grade grades improved after implementation of the DAWG time. To accomplish this purpose, a review of selected literature was conducted. Additionally, a t -test for independent samples was used to obtain and analyze baseline data from which related conclusions and recommendations were formulated.

## Delimitations

The study was conducted at BJH during the 2009-2010 school year. Student participants included 7<sup>th</sup> grade students 270 from 2008-2009 and 236 from 2009-2010. All 7<sup>th</sup> grade students at BJH were included in this study. This researcher sought to determine the effectiveness of the DAWG time program during the 2009-2010 school year. To make this determination, seventh grade grades from the first semester of 2008-2009 were compared to the first semester of 2009-2010 were compared.

## Assumptions

The researcher believed that teachers at BJH provided students with 25 minutes of extra help when students were called in to participate in the DAWG time. The assumption was also made that grades show indication of student performance that is related to learning. The researcher also believed that the teachers were highly qualified, competent, and trained to provide extra help to students. Finally, the assumption was made that BJH students from 2008-2009 were generally comparable in terms of their preparedness for junior high with the students in 2009-2010.

## **Hypothesis**

There will be a significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day.

## Null Hypothesis

There will be no significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day. Significance was determined for  $p \ge at 0.05$  levels.

## Significance of the Project

The researcher chose the present research topic to determine whether providing extra help during the school day was a benefit to seventh grade students at BJH. By implementing the extra help, class periods during the day were shortened and teachers had less time to teach the materials to the full class. Both school and district administrators, as well as parents wanted to know if improvement of grades provided a significant change in the seventh grade students of 2008-2009 as compared to 2009-2010. Procedure

During August 2009, the writer obtained permission from Mr. Paul Rempfer, the present BJH principal, to undertake the present study. At this time, the researcher defined the basis of the study, hypothesis, null-hypothesis, how participants were chosen, and identified expectations of the school administration. Union contract language for the school district requires that teachers have input into the schedule and curriculum of advisory. Since the DAWG time was part of advisory, teacher input was needed for the structure and implementation of the DAWG time. At the end of the previous school year

it was determined to include the extra-help time in the bell schedule. In September, the school leadership team along with a teacher advisory committee developed the procedures for DAWG time and provided staff with a set of student, staff, and administration roles and procedures (see Appendix). In February, the grades for 7<sup>th</sup> grade students were then obtained for 1<sup>st</sup> semester of 2008-2009 school year and the first semester of 2009-2010 school year. Tables were organized to compare grades of both groups of students. Data were obtained and analyzed from which related conclusions and recommendations were formulated and shared with the principal, assistant principal, and leadership team.

Table 1.

## Seventh Grade Failing Grades

	Seventh Grade Failing Grades		
	Failed Classes	Total Students	Percent of Failure
2008-09	221	270	13.64%
2009-10	152	236	10.73%

## Definition of Terms

Significant terms used in the context of the present study have been defined as follows:

<u>Adequate Yearly Progress.</u> Part of the No Child Left Behind legislation. It requires that states give a yearly assessment in math and reading beginning in third grade.

Each state was allowed to set the benchmark for the assessments which was to increase incrementally until the year 2013-2014 where the benchmark would be 100 percent for all students. Along with the testing requirements, attendance for elementary and middle schools and graduation rates for high schools are also measured.

<u>Elementary and Secondary Education Act.</u> Is a United States federal law that was originally signed into law in 1965. However, when the No Child Left Behind act was signed into law in January of 2002 the ESEA was reauthorized and amended. The purpose of the law is to provide every child with a fair and high quality education. ESEA is also another name for NLCB.

<u>experimental research.</u> Research in which at least one independent variable is manipulated, other relevant variables are controlled, and the effect on one or more dependent variables is observed.

<u>High School Performance Exam.</u> Is a standardized educational assessment system that is also used as a high school graduation requirement in the state of Washington. Formerly known as the WASL, this assessment consists of examinations over four subjects (reading, mathematics, science, and writing) with four different types of questions (multiple-choice, short-answer, essay, and problem solving).

<u>Matthew Effect.</u> Taken from the book of Matthew it is the academic achievement gap that begins taking place in elementary school. Students who are behind in reading at the end of a grade level continue to struggle and grow increasingly behind as they progress from year to year. The gap widens as the student moves up in grade level.

<u>Measurement of Student Progress.</u> Is a standardized educational assessment system that is also used as in the state of Washington. Formerly called the WASL, this assessment consists of examinations over four subjects (reading, mathematics, science, and writing) with four different types of questions (multiple-choice, short-answer, essay, and problem solving). This assessment takes place in grades three though eight.

<u>No Child Left Behind.</u> Is a United States <u>federal law</u> that was originally proposed by <u>President George W. Bush</u> on January 23, 2001. It enacts the theories of <u>standards-based education reform</u> which is based on the belief that setting high standards and establishing measurable goals can improve individual outcomes in education. The Act requires states to develop assessments in basic skills to be given to all students in certain grades, if those states are to receive federal funding for schools.

<u>quantitative research.</u> The collection of numerical data to explain, predict and/or control phenomena of interest.

<u>*t*- test for independent samples.</u> A parametric test of significance used to determine whether, at a selected probability level, a significant difference exists between the means of two independent samples.

<u>Washington Assessment of Student Learning.</u> Is a standardized educational assessment system that is also used as a <u>high school graduation examination</u> in the state of <u>Washington</u>. The WASL assessment consists of examinations over four subjects (reading, mathematics, science, and writing) with four different types of questions (multiple-choice, short-answer, essay, and problem solving).

## <u>Acronyms</u>

ACT, American College Testing Program

- AYP. Adequate Yearly Progress
- BJH. Bethel Junior High
- DAWG. Dedication Attitude Work ethic Growth
- EALR. Essential Academic Learning Requirement
- EASA. Elementary and Secondary Education Act
- HSPE. High School Performance Exam
- MSP. Measurement of Student Progress
- NCLB. No Child Left Behind
- OSPI. Office of Superintendent of Public Instruction
- WASL. Washington Assessment of Student Learning

## CHAPTER 2

## Review of Selected Literature

## **Introduction**

While researching the proposed study, several topics began surfacing. Adequate Yearly Progess brought about by the No Child Left Behind legislation was a topic that contributed to the background for this study. Other topics that contributed dealt with drop-out prevention, purposes of middle school, and transition to middle school.

Research was found through an online search using Proquest, Educational Resources Information Center (ERIC), and the internet. Data that was current within the last five (5) years were primarily used.

## Adequate Yearly Progress

The No Child Left Behind (NCLB) reauthorized and amended the Elementary and Secondary Education Act (ESEA). The purpose of this act was to

Provide all children with a fair, equal, and significant opportunity to obtain a high-quality education (Washington State Office of Superintendent of Public Instruction, 2008).

The way this education was to be brought about was by providing accountability, flexibility, research-based education, and parent options (Washington State Office of Superintendent of Public Instruction, 2008). Schools are essentially given a report card at the beginning of each school year that shows data from the previous school year. The report shows if schools are making AYP. Schools that do not make AYP for two consecutive years then enter Step 1 of the school improvement process. A loss of funding and/or outside entities determining how monies are spent is a part of that process. Schools in Step 2 must offer parents supplemental educational services for students who are struggling and in Step 1 school districts must pay for transportation costs if parents choose to send their children to a school within the district that is making AYP.

Before the NCLB was enacted, Washington state was in the process of educational reform. It had developed the state standards and state testing that was to take place during fourth, seventh, and tenth grade. The test originally assessed four areas; Reading, Writing, Math, and Listening. Listening was eventually replaced with Science and tested in the fifth, eighth, and tenth grades. When assessment was now required in grades 3-8 in Reading and Math, the WASL was developed to test those two subjects in third, fifth, sixth, and eighth grades while the previous testing continued. In the 2009-2010 school year the test name was changed to Measurement of Student Progress (MSP) in grades 3-8. This assessment took place yearly in May for grades 3-8.

In High School the test name of the test was changed to the High School Proficiency Exam (HSPE) in 2009-2010. Students in tenth grade take the Reading and Writing portions yearly in March. Math and Science testing occur in May. In order for students to graduate, they must pass the Reading and Writing tests. Students who do not pass their tenth grade year may retake the test in August or during their eleventh and twelfth grades year(s). There are some alternative options for students who do not pass such as a portfolio or collection of evidence. The percent of students meeting standard in the 2008-2009 school year were 81.2% in Reading, 86.7% in Writing, 45.4% in Math, and 38.8% in Science (Washington State Office of Superintendent of Public Instruction,

2009). Students are not required to pass Math or Science in order to graduate. Each student must take the Math assessment at least once. If students do not meet standard, then required Math courses are taken to fulfill graduation requirements. Passing or taking the Science HSPE is not required to graduate. The only two content areas that are tested for AYP are Math and Reading which are not the two that are required for graduation in Washington. The graduation standards of Washington state do not match the content areas measured by AYP. This has been a concern of many school districts in Washington state.

Another component of AYP was that the high school on-time graduation rates were measured. Schools that do not meet the benchmark percentage of on-time graduates do not make AYP. Benchmarks for on-time graduation for Washington State started with 66% in 2002 and increased incrementally to 85% in 2014 (Washington State Of Public Instruction, 2007). High schools were the only schools that are evaluated on matriculation. Elementary and Middle Schools were evaluated by their unexcused absence rate rather than a graduation rate.

## Drop Out Prevention

On-time graduation has been a focused concern for many years. Preventing students from dropping out of school has been one of the strategies for increasing the completion of high school.

National high school graduation rates hover between 68% and 71%, indicating that about one-third of all high school students drop out (Finnan, C. & Chasin, G. 2007 p. 626).

Studies funded by the Department of Education have recommended that schools mentor and monitor students as well as restructure schools to prevent drop outs (Department of Education, 2007). They contend that students who have adults to monitor their progress and give student regular feedback have greater graduation success. Also schools that restructure into smaller subsections of school, freshman academies for example, are monitored more closely and are linked to higher graduation rates. According to their research they have recommended practices for preventing drop out. Their first recommendation was to use a diagnostic tracking of data of students who drop out so that those students who are at-risk for dropping out may be identified. Secondly, they advise targeted interventions using an adult advocate, providing academic support and help with classroom behavior. They also recommend school wide interventions such as personalizing the instruction and providing rigorous academic opportunities (Department of Education, 2007).

Other research points to earlier drop put prevention. American College Testing (ACT) Program claims that 'the level of academic achievement that students attain by 8<sup>th</sup> grade has a larger impact on their college and career readiness by grades 11-12 than anything that happens academically in high school (ACT 2008 p. 1). ACT contends that early intervention needs to take place at the middle school. Students who have learned the skills that they need to pass classes will then take these skills to the high school with them. Also if students are not making academic achievements in the middle school they are creating another version of the Matthew effect. If students do not pass classes in their middle school years, they leave this schooling increasingly behind their successful peers thus making them further behind for the rigors of high school.

#### Middle School Purposes

Another research cluster that helps to understand this study is about the purpose of middle school. Middle school was not always a structure of K-12 education. Originally, students attended the K-8 school house. Then came the emergence of seventh through ninth grade junior highs. The middle school concept gained momentum in the 1960s and 1970s. Some of the origins of creating middle school were not about student need, but about social justice. Schools in the south were attempting to desegregate and creating a new structure for schools helped facilitate that change. After the Nation at Risk report in 1983, school districts that still had junior highs created middle schools so that ninth grade students would benefit from the rigor of high school (George, 2009). Along with societal concerns, there were also groups of educators that believed that the middle school model could meet the developmental needs of adolescents.

Middle schools have come under public scrutiny especially with the reform movement and NCLB. Students do not seem to perform as highly in middle school as they had in elementary or will in high school. This criticism is similar to that of the junior high that preceded it. There was no blueprint for the American educational system. Junior highs developed schedules that mirrored high school schedules. The only difference being the academic courses of the student. Middle schools used the junior high schedule. The grade of the students changed but not the structure. Middle school educators began to research the development of the adolescents that attended middle schools.

However, the current state and national reform and accountability efforts, ignoring this body of research, continue to try to improve schools as they

currently are organized, rather than breaking out of existing patterns and instituting changes that are more in harmony with the middle school concept" (Lounsbury 2009 p. 33).

In order for the middle school to be effective, research into best practices for middle school needs to be implemented.

Researchers have been looking into the best practices of middle school. Some of the recommendations that have been given have to do with school structure. Interdisciplinary teaming, block scheduling, looping, and building small schools or houses within the school have been implemented in many successful middle school models. Other researchers also include school climate as being critical to a middle schools success (Stryon, R. & Nyman, T., 2008). Middle schools have begun the shift from the high school structure to learning practices that are developmentally appropriate for the students coming through their doors.

## Middle School Transitions

While all grade transitions can be challenging, the move from elementary to middle school is particularly difficult.

Anxiety is complicated further by other normative changes such as puberty, social and emotional development, the growing importance of peer relationships, and the development of higher order cognitive skills. Students who experience the stresses of numerous changes often have lower grades and decreased academic motivation, and they eventually drop out of school (Cauley, K. & Jovanovich, D. 2006 p. 15). Students encounter new schedules, higher expectations both academically and in responsibilities, and new peer groups. Transition programs need to be available to students and parents to help them tackle all the change. Programs that were most effective began in the spring of elementary and continued during the school change. Students can reduce fears if they can anticipate what changes will occur and have a chance to encounter them with help. Lockers practice and building tours are ways that some middle schools began the process of transition. "Young adolescents encounter more of everything in middle school: more space to navigate, more people with whom to interact, and more choices to make in terms of classes, friendship, and activities." (Parker, A. & Neuharth-Pritchett, S. 2009 p. 20)

During this time of transition, the role of adults is important in helping the student successfully adapt to middle school. According to Woolley & Bowen, "A child's relationships with adults in his or her immediate environments have a substantial impact" (2007 p. 93). Some schools provided an advisory program. Others used school counselors to make presentations to all of the beginning sixth graders and then used focused small groups for students who seem at risk to fail. Other schools offered family nights to encourage communication between the child and parent. Regardless of the system in place, adult guidance was critical to a smooth transition.

## Summary Summary

The review of selected literature reported in Chapter 2 supported the following research themes:

- Adequate Yearly Progress which is part of No Child Left Behind reports on how schools are performing on standardized tests as well as graduation expectations for high schools.
- Drop out prevention is needed in order to meet the graduation requirements. Most students begin needing the intervention before reaching high school which makes middle school important for making students ready for high school.
- 3. Middle school was part of a redesign of our education system. The movement from the original K-8 and 9-12 system. The success of this grouping of students is a critical bridge to high school. Middle school purposes have been increasingly better defined. Schools are beginning to move from having a high school model to one that meets the academic and developmental needs of their students.
- Transitioning to middle school is a critical moment in education. Students need many supports in transitioning from the elementary to the middle school structure.

## CHAPTER 3

## Methodology and Treatment of Data

## Introduction

The purpose of this quantitative, experimental research study was to determine the extent to which seventh grade academic grades improved after implementation of the DAWG time at Bethel Junior High. To accomplish this purpose, a review of selected literature was conducted. Additionally, a *t* -test for independent samples was used to obtain and analyze baseline data from which related conclusions and recommendations were formulated.

Chapter 3 contains a description of the methodology used in this study. Additionally, the researcher included details concerning participants, instruments, design, procedure, treatment or the data, and summary.

## Methodology

The researcher used a quantitative, experimental research method where at least one independent variable was manipulated. Other relevant variables were controlled, and effects were observed on one or more dependent variable. Significance between control (X) and experimental (Y) groups was determined by implementing and analyzing a *t*-test for independent samples. Both groups had a semester grade for their academic subjects. Group X received regular classroom instruction and Group Y received regular classroom instruction along with the additional DAWG time. This research was conducted during the 2008-2009 and 2009-2010 school years affecting seventh grade students. The control group included the seventh grade students enrolled at BJH during 2008-2009 who were

instructed during the academic day. The experimental group included the seventh grade students enrolled at BJH 2009-2010 instructed during the school day along with the DAWG Time program.

## Participants

Participants in this study consisted of 506 seventh grade students who attended Bethel Junior High School (BJH) during the 2008-2009 and 2009-2010 school years. All seventh grade students were included in the study. The demographics of BJH include 55.6% male, 44.4 % female, 33.4% Free and Reduced lunch, and 11.3% Special Education. The ethnic make up of the school was 63.9% white, 11% black, 10.4% Hispanic, and 10% Asian/Pacific Islander. The 2008-2009 seventh grade students did not have DAWG time available during the school day. All seventh grade students had the DAWG time built into their schedule for the 2009-20010 school year.

## Instrument

Grades were used for measuring academic success. Grades are determined by teachers and used to report student progress to the district, parents, and community. Grades are part of the educational system that determines whether or not a student earns credit for a class. At the junior and senior high schools in the district, letter grades are used to determine academic success. Letter grades do give teachers, parents, students, and administrators a snapshot of how students are performing in a class and if interventions are needed.

For purposes of comparison, the researcher compared the number of classes students passed as defined by not receiving a D or F were used to compare the seventh grade achievement from the 2008-2009 year to the achievement of the seventh grade students from the 2009-2010 school year. First semester grades were determined at the end of January in 2009 and in 2010. The grades were the focus of this study.

## <u>Design</u>

This experimental study involved the two groups of BJH seventh grade students. At the end of first semester, grades were submitted for both groups. The grades were then analyzed to decide if the number of passing grades increased with the implementation of the daily DAWG time. The two independent groups included:

## **<u>Group X</u>** (i.e. control group):

This group, consisted of 270 seventh grades students from the 2008-2009 school year. These students had a traditional junior high schedule. They had six academic classes. Students who were struggling or not passing standards were given interventions during class.

## **<u>Group Y</u>** (i.e. experimental group):

This group included 236 seventh grade students from the 2009-2010 school year. The schedule was changed so that class periods were shortened by five minutes. At the end of the day all students attended a study hall/DAWG time. Students could use this time to finish homework, read, or receive extra instruction from teachers. Students could sign up with their teachers or teachers could require students to come in and receive extra help. Teachers took attendance and then students either remained in class for study hall,

received extra assistance from their teacher, or went to another teacher's class to get help. This took place 4 times a week.

## Procedure

This researcher conducted this quantitative experimental research study at Bethel Junior High (BJH) located in Spanaway, Washington. First, the researcher compared the grades of seventh grade students from 2008-2009 to seventh grade students 2009-2010. A system of extra help during the school day was introduced to BJH during the 2009-2010 school year. The premise of this study was to determine whether this system of extra help, DAWG time increased student achievement as defined by semester grades.

Subsequent procedures employed evolved as follows:

- August, 2009: permission to undertake this study was obtained from Mr. Rempher, the Principal of BJH. At this time, the purpose of the study was determined academic grades from 2008-2009 and 2009-2010 to see if there was a significant difference in the grades of students by the addition of DAWG time in the daily schedule.
- The researcher defined the basis of the study, hypothesis, null-hypothesis, how participants were chosen, and defined expectations of each staff member involved.
- 3. The researcher obtained academic grades for 2008-2009 and 2009-2010 seventh grade students from the assistant principal at BJH.
- 4. Academic grades were compiled and analyzed for significance .

- 5. A *t*-test for independent samples was chosen as an appropriate measurement tool for determining significance between the experimental and control groups.
- 6. Further analysis, related conclusions, and recommendations were then formulated during June and July 2010.

## Treatment of the Data

A *t*-test for independent samples was chosen as an appropriate measurement tool for determining significance between the experimental and control groups. The researcher used the Windows STATPACK statistical software program and the text, <u>Educational Research: Competencies for Analysis and Applications</u> (Gay, Mills, & Airasian, 2006) for interpreting the data compiled from the *t*-test results for significance levels  $p \ge$  at the 0.5 levels.

To test the null hypothesis which would show no significance difference between the grades of the DAWG time experimental group and the grades of the non-Dawg time control group, a *t*-test for independent samples was performed a second time. The following formula was implemented to test for significance:

$$t = \frac{\overline{X}_{1} - \overline{X}_{2}}{\sqrt{\left(\frac{SS_{1} + SS_{2}}{n_{1} + n_{2} - 2}\right)\left(\frac{1}{n_{1}} + \frac{1}{n_{2}}\right)}}$$

## **Summary**

Chapter 3 provided a description of the research methodology employed in the study, participants, instrument used, research design, and procedures utilized. Details concerning treatment of the data obtained and analyzed were also presented.

## **CHAPTER 4**

## Analysis of the Data

## Introduction

This experimental study sought to determine the extent to which the number of failing grades decreased after implementation of the DAWG time at BJH.

Chapter 4 was organized to include the following: Description of the environment; hypothesis; null hypothesis; results of the study; findings; and summary.

## Description of the Environment

Bethel Junior High (BJH) had a Technical Assistance Visit (TAV) by the Southern Regional Educational Board (SREB). The recommendations from the TAV included implementing a system of extra help within the school day. The administration at BJH revised the schedule for the 2009-2010 to include this system of help called DAWG time. It occurred the last 25 minutes of the school day four days a week. Students could sign up for extra help if they were struggling in a class or if they needed more instruction. Teachers could also assign extra help. Participants in the study included all 236 of the seventh grade students at BJH. BJH is one of 5 junior high students in the Bethel School District. Most of the students lived in Spanaway, where the junior high school was located. BJH is one of five junior high schools in the district. The students who attended this school are in grades 7-9. At BJH the students were 55.6% male, 44.4 % female, 33.4% Free and Reduced lunch, and 11.3% Special Education. The ethnic make

up of the school was 63.9% white, 11% black, 10.4% Hispanic, and 10% Asian/Pacific Islander.

The control group (Group X) included 270 seventh grade students from the 2008-2009 school year and (Group Y) consisted of 236 seventh students during the 2009-2010 school year. Control and treatment groups included all of the seventh grade students at BJH.

## Hypothesis

There will be a significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day.

## Null Hypothesis

There will be no significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day. Significance was determined for  $p \ge at 0.05$  levels.

## Results of the Study

A *t*-test for independent samples was calculated to compare the level of significance between experimental and control groups. *Figure 1* disclosed the results of the *t*-test. *Figure 2* displays the means of both the control and experimental group as a line graph while Table 2 represented the distribution of *t* with 504 degrees of freedom. Significance was determined for  $p \ge 0.05$ .

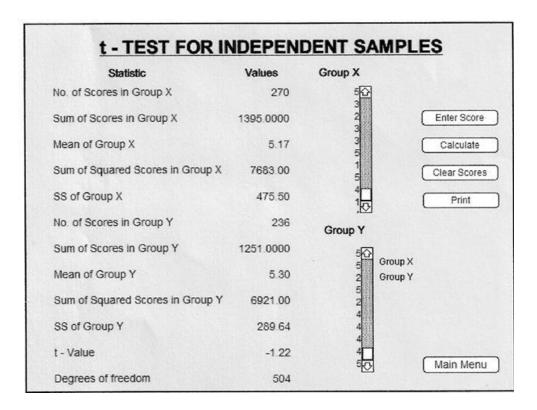
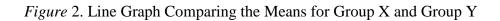
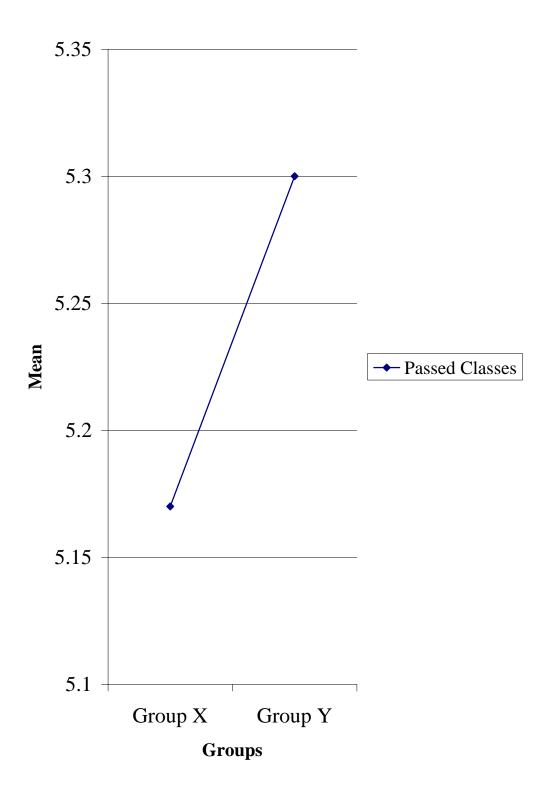


Figure 1. Summary of t-test for Independent Samples

*Figure 1* displayed 270 scores for Group X (experimental) and 236 scores for Group Y (control).

The Sum of Scores for X was 1395 and Y was 1251. The mean of Group X was 5.17 and Group Y was 5.30. The Sum of the Squared Scores in Group X was 7683 and the Sum of the Squared Scores in Group Y was 6921. The degree of freedom was 504 and the *t* value was -1.22. The values used to determine significance were published in the textbook Educational Research: Competencies and Applications (Gay and Airasian, 2003, p. 571). Table 2 represented the *t* value with infinite degrees of freedom used in the study.





*Figure 2* displayed the mean for the 270 scores for Group X (experimental) and the mean for the 236 scores for Group Y (control).

Table 2.

Distribution of t with 504 Degrees of Freedom

Distribution of t with 504 Degrees of Freedom		
		p
df	0.05	0.01
infinite	1.960	2.576

The *t*-test was used to compare treatment and control groups. The *t*-value was at -1.22 as noted in *Figure 1*, and the degrees of freedom at 0.05, 0.01, and 0.001, as noted in Table 1. Significance was not determined at the  $p \ge 0.05$  level of 1.960 nor the 0.01 level of 2.576. Accordingly, the null hypothesis was accepted at all levels and the hypothesis was not supported at any level.

## **Findings**

Data obtained were used to compare whether implementation of DAWG time during the academic year 2009-2010 improved the academic grades of seventh grade students as reflected on the first semester grades. Data revealed that the experimental group (Y) mean, 5.3, was above the control group (X) mean, 5.17. Through statistical analysis, it was determined that no significant difference occurred between the experimental group and the control group at all levels of  $p \ge 0.05$ , (1.960) and 0.01 (2.576). The findings did not support the hypothesis at any level of  $p \ge 0.05$  and 0.01. The null hypothesis was accepted at levels of  $p \ge 0.05$  and 0.01.

## Discussion

One of the expectations that the researcher and staff at BJH had was that the hypothesis was supported because data were being looked at throughout the semester and the number of failing grades were decreasing. When the grade data became available and the percentage of failing grades was less than the previous year, there was still the expectation that the hypothesis was supported. However, after the t-test was performed and numbers were put into the Stat-Pak the results did not support the hypothesis. The researcher and staff would like to know if there were other societal factors that influenced the study. For example, the attendance rate for the district decreased from the previous year. Pierce County where BJH is located had the highest rate of foreclosure for the state and school officials were beginning to look at how attendance was affected. Staff were wondering if these economic circumstances also were affecting academic achievement as well.

#### Summary

Chapter 4 reviewed and detailed the description of the environment, hypothesis, null hypothesis, results of the study, and major findings.

 The hypothesis was not supported (i.e., There will be a significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day).

- The null hypothesis was accepted (i.e., There will be no significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day).
- 3. The fundamental research question on which the study focused was answered in the positive. The research indicated that the treatment had a positive impact on intervention group student performance.

#### CHAPTER 5

#### Summary, Conclusions, and Recommendations

### <u>Summary</u>

The purpose of this quantitative, experimental research study was to determine the extent to which seventh grade grades improved after implementation of the DAWG time. To accomplish this purpose, a review of selected literature was conducted. Additionally, a t -test for independent samples was used to obtain and analyze baseline data from which related conclusions and recommendations were formulated.

### **Conclusions**

From research findings presented in Chapter 2 and an analysis of data presented in Chapter 4, the following conclusions were reached:

- Adequate Yearly Progress which is part of No Child Left Behind reports on how schools are performing on standardized tests as well as graduation expectations for high schools.
- Drop out prevention is needed in order to meet the graduation requirements. Most students begin needing the intervention before reaching high school which makes middle school important for making students ready for high school.
- 3. The hypothesis was not supported (i.e., There will be a significant effect on seventh grade students at Bethel Junior High grades will be improved as

30

measured by an increase in the number of classes passed after implementing an extra help time within the school day).

- 4. The null hypothesis was accepted (i.e., There will be no significant effect on seventh grade students at Bethel Junior High grades will be improved as measured by an increase in the number of classes passed after implementing an extra help time within the school day).
- 5. The fundamental research question on which the study focused was answered in the positive. The research indicated that the treatment had a positive impact on intervention group student performance.

## Recommendations

Based on the conclusions cited above, the following recommendations have been suggested:

- Since AYP, which is part of NCLB legislation, includes graduation rates it is imperative that students are able to obtain credit in order to earn their diplomas.
- Teachers and school officials need to be able to adequately prepare students for success at high school. This preparation is critical in grades K-8, but particularly in the middle grades when students
- According to the research findings, the DAWG time program at BJH should continue to be monitored for effectiveness because there was positive student impact. However, no significant difference was found between the experimental and control groups.

4. Educators seeking information related to the extent to which academic grades improved after implementing extra help within the school may wish to utilize information presented in this study or, they may wish to conduct further research more suited to their unique needs.

#### REFERENCES

ACT (2008). The forgotten middle: Ensuring that all students are on target for college and career readiness before high school. Iowa City, IA: Author.

Balfanz, R. (2009). Putting middle grades students on the graduation path. John Hopkins
 University, Retrieved December 4, 2009 from
 <a href="http://www.nmsa.org/portals/0/pdf/research/Research\_from\_the\_Field/Policy\_Bri">http://www.nmsa.org/portals/0/pdf/research/Research\_from\_the\_Field/Policy\_Bri</a>
 <a href="http://www.nmsa.org/portals/0/pdf/research/Research\_from\_the\_Field/Policy\_Bri">http://www.nmsa.org/portals/0/pdf/research/Research\_from\_the\_Field/Policy\_Bri</a>

- Finnan, C., & Chasin, G. (2007). Accelerating the learning of low-achieving students: The transformation of a dropout, *Phi Delta Kappan*, 88 (8), 625–629.
- Gay, L., Mills, G., & Airasian. (2006). Educational research competencies for analysis and applications (4<sup>th</sup> ed.). Columbus: Pearson Merrill Prentice Hall.
- George, P. (2009). Renewing the middle school: The early success of a middle school education, *Middle School Journal*, 41 (1), pp. 4-9.
- Heckman, J. J., and LaFontaine, P. A. (2007) The American High School Graduation
  Rate: Trends and Levels. NBER Working Paper No. 13670. Retrieved December
  4, 2009 from <a href="http://www.nber.org/papers/W13670.pdf">http://www.nber.org/papers/W13670.pdf</a>
- Cauley, K. & Jovanovich, D. (2006). Developing an effective transition program for students entering middle school or high school, *The Clearing House*, 80 (1), pp. 15-25.

- Lounsbury, J. (2009). Deferred but not deterred: A middle school manifesto, *Middle School Journal*, 40 (5), 31-36.
- Parker, A. & Neuharth-Pritchett, S. (2009). Calming rough waters: teacher strategies for smoothing the transition to middle school, *Childhood Education*, 86 (1), pp. 20-26.
- Styron, R., & Nyman, T. (2008). Key characteristics of middle school performance, *Research in Middle Level Educations*, 31 (5), pp. 1-17.
- U.S. Department of Education. (2003). Office of the secretary, office of public affairs. *No child left behind: a parent's guide*, Washington, D.C. pp. 7-21.
- U.S. Department of Education. (2002). Office of elementary and secondary education, no child left behind: A desktop reference, Washington, D.C., pp. 15-20.
- Washington State Office of Superintendent of Public Instruction. (2009). Retrieved December 4, 2009 from <u>http://k12.wa.us/</u>
- Woolley, M., & Bowen, G. (2007). In the context of risk: supportive adults and the school engagement of middle school students, *Family Relations*, 56 (1), pp. 92-104.

### SUPPLEMENTAL REFERENCES

Akos, P. (2006). Participation and the transition to middle school, *Research in Middle Level Education*, 29 (9), pp. 1-9.

Balfanz, R., Herzog, L., & Iver, D (2007). Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions, *Educational Psychologist*, 42 (4), pp. 223-235.

Bunting, C. (2004). Balancing the middle school, *The Clearing House*, 77 (4), pp. 146-147.

- Christie, K. (2001). The middle level: More than treading water, *Phi Delta Kappan*, 82 (9), pp. 649-650.
- Cook, C., Faulkner, S., & Kinne, L., Schatschneider, C. (2009). Indicators of middle school implementation: How do Kentucky's schools measure up?, *Research in Middle Level Education*, 32 (6), 1-10.
- Downey, J. (2008). Recommendations for fostering resilience in the classroom, *Preventing School Failure*, 53 (1), pp. 56-65.
- Elias, M. (2002). Transitioning to middle school, *The Education Digest*, 67 (8), pp. 41-43.

Education Commission of the States. (2009). Middle grades : 15 actions your state can take to maximize young adolescents' readiness for Grade 9 – and college and careers. Retrieved December 4, 2009 from http://www.niusileadscape.org/docs/FINAL\_PRODUCTS/LearningCarousel/Mid dleGrades.pdf

- Honigsfeld, A., & Dunn, R. (2009). Learning-style responsive approaches for teaching typically performing and at-risk adolescents, *The Clearing House*, 82 (5), pp. 220-224.
- Jackson, A. (2009). New middle schools for new futures, *Middle School Journal*, 40 (5), pp. 6-10.

#### Appendix

## DAWG TIME IS ACADEMIC TIME.

## STUDENT RESPONSIBILITES

1. To bring homework or a book to read for DAWG TIME and to utilize that time for homework, studying and/or reading.

2. To have the yellow and white copies of the DAWG TIME extra help form when he reports to the regular DAWG TIME teacher.

3. To give the yellow copy to the DAWG TIME teacher.

4. To refrain from asking to report to another teacher unless they have a DAWG TIME extra help form from that teacher for that day.

5. To have all necessary materials and supplies for either DAWG TIME or extra help.

6. To study and prepare for the work to be performed during extra help.

7. To inform any teacher who may request the student to come for extra help if they have been previously assigned by another teacher.

#### TEACHER RESPONSIBILITIES/ PROCEDURES

DAWG TIME extra help assignments are first assigned; first served. Assignments may be only for one day and cannot be requests for several consecutive days unless there are no other teachers who wish to assign the student. The student is responsible for giving you this information. Students may not report or ask to go to another room for help without an extra help assignment form.

Requesting teacher :

1. To complete the 3-part assignment slip.

On this form, the teacher is to enter the 1, 2, or 3 purpose code on the Other

Information line. (future forms will have boxes to check)

# PURPOSE CODE

 ABSENT -to make up work that was missed during an absence.
 IN-CLASS REINFORCEMENT—to re-do or make up work for class or assigned as homework; tutoring; formative evaluations.

3. STANDARD REINFORCEMENT—to re-do work necessary to meet a major academic standard for the class.

2. To have the student sign the form and give the WHITE AND YELLOW forms to the student for a hall pass and check-in with the regular DAWG TIME teacher. Retain the pink slip.

3. To collect the WHITE slip when the student returns from checking in with the regular DAWG TIME teacher.

4. To return the WHITE slip to the office at the end of the day. This indicates the student showed up for extra help. Place the form in the white box by the coffee pot in Mr. Semon's office

5. To retain the pink slip for all students who showed up for extra help. This is only for your personal record keeping.

6. To return the PINK slip to the office at the end of the day for all students who did not show up for extra help. The office will take the appropriate action. Place the pink forms in the pink box by the coffee pot in Mr. Semon's office.

## Regular DAWG TIME teacher:

1. To collect the YELLOW slips for all students reporting for extra help.

2. To monitor DAWG students to ensure that they have work or books to read.

During the first week of the month, the office will provide teachers with a listing of all students for whom they provided extra help during the previous month. On this list, they are to indicate those students they surmise NEED MORE HELP or they feel ARE STILL AT RISK FOR FAILURE. The teacher is to check those students in the column provided on the form and return to the office by the end of the week. It will be assumed that if a student was not checked, the extra help successfully met the purpose indicated on the original form. (This report is for statistical purposes only and in no way used for tracking the number of students a teacher may request during the month.)

### ADMINISTRATIVE RESPONSIBILITIES

39

1. To ensure that an adequate supply for forms are on hand.

2. To record the students, by name, by date, and by purpose code who were assigned DAWG TIME and reported for extra help.

3. To provide each teacher a statistical reporting sheet with a listing of all his/her students who reported for DAWG time extra help during the first week of the month for the previous month.

4. To gather and maintain statistical data as reported on the monthly report.

5. To be able to extrapolate, by student name, the number of times, dates and for what purpose, they were assigned to DAWG TIME, the number of times they reported, and the number of times they did not report and if the purpose was met.

6. For students assigned to DAWG TIME, but not reporting, assign after school detention, ISS, or out of school suspension, whichever is appropriate.