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Urban Middle School Teachers: Tenured Versus Non-Tenured Teachers and the Impact They Have on Academic Achievement

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by

Rochelle Harris-Clark

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Dissertation submitted to the Education Faculty of Lindenwood University

in partial fulfillment of the requirements for the degree of

Doctor of Education

School of Education

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university or degree here or elsewhere.

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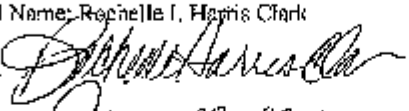
Signature: 

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This Dissertation has been approved as partial fulfillment of the requirements for the degree of Doctor of Education at Lindenwood University by the School of Education

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Abstract

The Iowa Test of Basic Skills (ITBS) is used in the district of Study School No. 1 to give insight on student academic skill level in terms of years and months. Teacher strategies and expertise in the area of education is an integral part of the educational process. Tenure status, or the years of experience, is plagued with the idea that it promotes or has an impact on student achievement. Although there were a significant number of tenured special education and general education teachers at the study school during the 2005–2006, 2006–2007, and 2007–2008 school years, the school did not make adequate yearly progress (AYP) due to the special education subgroup's failure to meet state standards. Because the school failed to make AYP for four consecutive years, they have been placed on Academic Watch. Several of these general education teachers had many years of teaching experience; however, there was no evidence of the relationship between tenure status and the academic gains the students displayed on the ITBS assessment. The ITBS is used to assess student academic skills. In this study the researchers wanted to determine if there was a significant relationship between teacher tenure status (independent variable) and student academic achievement (dependent variable). Pre- and post-ITBS reading and math scores were used as a basis to examine academic achievement. The hypothesis stated that if students receive instruction from a tenured teacher, they will have greater academic achievement than students receiving instruction from a non-tenured teacher. General education, instructional special education, and special education resource teachers were included in the study. Scatter Plots for each data set were constructed to visually indicate a relationship between the independent and dependent variables. The correlation coefficient was also calculated using the

independent and dependent variables, which, for some data sets, resulted in a negative correlation, meaning there was not a positive correlation, and no further testing was needed. While these two statistical measure may have resulted in a positive correlation between the independent and dependent variables, a correlation coefficient test of significance was run using critical values for PPMC, and an alpha of 0.05 was used to determine if there was a positive correlation between the years of teacher service and the pre- and post-ITBS reading and math scores. The correlation coefficient test of significance was the last factor in determining if there was a positive correlation between the independent and dependent variables, and was only used if the correlation coefficient did not result in a negative figure. The result of the analysis for special education concluded that there was not a significant correlation between the independent and dependent variables; the null hypothesis was accepted, except for the 2005–2006 reading ITBS pre and post scores for a tenured teacher. For this positive correlation, the null hypothesis was rejected. The result of the analysis for general education concluded that there was not a significant correlation between the independent and dependent variables. This collaborative research project was conducted by Sheryl Wilson, Trenese Dancy, and Rochelle Harris-Clark. Each researcher studied tenured versus non-tenured teachers; however, they each had a different focus group. Sheryl Wilson focused on instructional special education teachers, Trenese Dancy focused on general education teachers, and Rochelle Harris-Clark focused on all teachers.

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Key to Abbreviations

AYP	Adequate Yearly Progress
df	Degrees of Freedom
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Plan
ISAT	Illinois Standards Achievement Test
ITBS	Iowa Test of Basic Skills
NCLB	No Child Left Behind
PPMC	Pearson Product–Moment Correlation

Chapter One – Introduction

Background of the Problem

"Public education ultimately succeeds or fails based on the talents and skills of America's 3.1 million teachers in elementary and secondary schools" (Gordon, Kane, & Staiger, 2006, p. 1). The establishment of the No Child Left Behind Act (NCLB) in 2001 (NCLB Act, 2003) indicated that there were deficits in the American educational system. Schools in the United States were experiencing declines in academic achievement, increased dropout rates, significant amounts and various levels of discipline occurrences, low college enrollment, and a continuance of a vast academic achievement gap between minority students and other ethnic groups. Students residing in high-poverty urban areas are especially at risk of exposure to these debilitating obstacles.

Students from low-income urban schools are consistently achieving at levels lower than their middle- and upper-class cohorts. This problem can be attributed to several factors, such as socioeconomic status, core curriculum in urban schools, teacher attrition and retention, and the level of experience teachers instructing these students possess. Families residing in urban neighborhoods must deal with increasing crime rates, drug activity, and substandard living conditions (Borland & Howsen, 1999). Student transfers between schools within a district along with moving to new schools are part of a growing problem leading to decreased student achievement in urban schools (Fowler-Finn, 2001). Because of the external factors students residing in urban areas face, they need exemplary classroom teachers with experience. Students living in urban areas need teachers with years of experience and confidence within the content areas that are effective in providing strategies needed to increase student understanding.

According to Burke (2006), master teachers are

1. extremely flexible,
2. innovative,
3. fluent in subject matter,
4. able and willing to improvise,
5. take risks for the right reasons,
6. self-assess constantly,
7. rarely satisfied with their own performance,
8. enhance their skills,
9. assess where the students are,
10. help them to build upon their strengths, and
11. define for others what success means and looks like.

Having an effective teacher for 4 to 5 years as opposed to having an average teacher for the same length of time could possibly close the gap in math performance between students from low-socioeconomic and high-socioeconomic families (Hanushek, Kain, & Rivkin, 2003; Babu & Mendro, 2003; Rivkin, Hanushek, & Kain, 2005).

Urban school districts have been unsuccessful in employing and retaining master teachers. Therefore, there are increased numbers of non-tenured less effective teachers working in inner city schools. “While it is estimated that over the next 10 years 2 million new teachers will be needed nationwide, research overwhelmingly predicts that 50% of new teachers will not be teaching after three to five years in the profession” (Glasgow & Hicks, 2003, p. xiii). This decrease in the education profession is expected to take place within the first 3 to 5 years of employment. Many teachers will exit education because

they work in schools in impoverished areas (Anthony & Kritsonis, 2007). Ingersoll (2002) found that nearly one half of teacher attrition can be accounted for by exodus to different schools. Such movement is concentrated in schools and districts in low-socioeconomic communities which are experiencing an increasing and steady loss of teachers (Hammerness, 2006). This loss of teachers does not support increased school achievement.

Improving student achievement is at the forefront of every school district and higher institution of learning nationwide. Increasing student achievement while searching for and maintaining a staff of highly qualified and effective teachers is the challenge that educators, school districts, and institutes of higher education face (Glasgow & Hicks, 2003).

Statement of the Problem

This study school housed general education teachers, instructional special education teachers, and resource special education teachers. The problem is that although there were a significant number of tenured special education teachers at the study school during the 2005–2006, 2006–2007, and 2007–2008 school years, the school did not make adequate yearly progress (AYP) due to the special education subgroups' failure to meet state standards. Because the school failed to make AYP for 4 consecutive years, the school has been placed on academic watch. Several of the special education teachers had many years of teaching experience; however, there was no evidence of the relationship between tenure status and the academic gains the students displayed on the Iowa Test of Basic Skills (ITBS) assessment. The ITBS is used to assess academic skills in Illinois public schools.

During the years researched, the district of the study school employed 273 teachers of which 63 were special education teachers and 6 of them were special education resource teachers from 2005–2006. In the 2006–2007 school year, 271 teachers there were employed, 56 of them were special educators, and 6 of them were special education resource teachers. During the 2007–2008 school year, there were 284 teachers, which included 57 special education teachers and 6 special education resource teachers.

Due to the increasing standards set forth by No Child Left Behind, it is imperative that districts make data-driven decisions to ensure these standards are met. The level of support provided to teachers, depending on their level of experience, may prove to be a determining factor in the students' amount of growth. The researchers examined if there was a difference between the academic gains of special education students who received instruction from special education teachers with tenure and students who received instruction from special education teachers without tenure.

Years of service is the only factor in determining the tenured status of teachers at the study school. According to Glasgow and Hicks (2003), successful teachers (a) collaborate with students, (b) have classroom management, (c) are organized, (d) have effective lesson plans and instructional delivery, (e) are able to differentiate instruction, (f) continually assess student achievement, and (g) exhibit culturally responsive teaching methods. Therefore, if the study school wants to increase student achievement, the building administrators should support teachers by providing high-quality professional development, because years of service does not always equate to increased student achievement.

Purpose of the Study

The purpose of this study was to examine if students receiving instruction from non-tenured teachers demonstrate the same gains in the areas of reading and math as students receiving instruction from tenured teachers in the areas of reading and math. This was determined by using archival data from pre and post scores on the ITBS. The ITBS is a standardized achievement test used to measure student performance in the areas of reading, language and math. Success on the ITBS is determined by the stanine score and the amount of growth students display between fall and spring assessments. The stanine is the combined score from the reading, language, and math subtest. This urban district uses the data from the ITBS for the purpose of student promotion and retention and as an indicator of success on the Illinois Standard Achievement Test (ISAT). The ISAT test is used to identify the strengths and weaknesses of the district.

In addition to the above, this quantitative study was intended to provide information that could be used to assist central office in the following ways:

1. Determine if a more effective evaluation tool is needed for tenured and non-tenured special education teachers.
2. Determine if it there is a cost benefit of hiring tenured versus non-tenured teachers.

Rationale for the Study

Sheryl Wilson, Trenese Dancy, and Rochelle Harris-Clark collaborated to complete this research study. While all researchers studied tenured versus non-tenured teachers and the impact on academic achievement; Sheryl Wilson focused on instructional special education teachers, Trenese Dancy focused on general education

teachers, and Rochelle Harris-Clark focused on all teachers combined. This combination included general education teachers, instructional special education teachers, and special education resource teachers.

Special education teachers utilize the same curriculum as general education teachers. However, to ensure special education students have access to the general education curriculum, the special education teachers make accommodations and modify the curriculum. At times alternative assessments are used to address student Individualized Education Plans (IEPs).

Tenure is defined as an act or right to hold a permanent teaching position. Tenure does not guarantee a teacher's job for life, but it does ensure that if a teacher is ever disciplined or dismissed from his or her teaching duties that he or she is entitled to due process. Randi Weingarten, president of the American Federation of Teachers (as cited in Dillon, 2008), suggests that if leaders are going to fight the tenure status based on student achievement, then it should be tied into the data portion. In other words, based on the data received, how well, if at all, did teachers implement strategies to improve student achievement. It refocuses the performance factor on teacher implementation instead of student achievement. Although this is a different avenue for tenure status, this may or may not be possible with the declining performance of schools.

Tenure is granted in this urban middle school at the end of a teacher's fourth successful year of teaching. Throughout a teacher's profession, the teacher is evaluated in four areas of professional competency: planning and preparation, classroom environment, instruction, and professional responsibilities. The primary purpose of this evaluation process is to ensure the effectiveness of instruction being provided to students. Prior to

tenure, teachers are evaluated twice a year. Once tenured, teachers are evaluated once every other year and are provided the opportunity to develop a goal in the domain of their choice. It is both proactive and collaborative between the teacher and the evaluator. To help teachers reach their chosen goal, the study school keeps in mind the philosophy behind the evaluation process, which is to focus on the teacher's assigned job and provide the necessary support, training, and additional resources when needed.

Students from low-income urban schools are consistently achieving at levels lower than their middle- and upper-class cohorts. Children receiving their education in urban school settings are at-risk and represent a higher number of students failing to meet standards set forth by No Child Left Behind. Students who receive their education in urban school settings also receive special education services at higher rates than students educated in rural and suburban school settings**.** The study school continues to struggle to make AYP, although there were several tenured teachers during the years researched. This research may demonstrate trends in achievement and growth when students receive services from a tenured special education teacher versus a non-tenured special education teacher.

Independent Variable

The independent variable is the tenure status of teachers.

Dependent Variable

The dependent variable is ITBS student achievement scores.

Hypotheses

H_1: There is a significant relationship between the tenure status of teachers and academic achievement.

$H_{0:}$ There is no relationship between the tenure status of teachers and academic achievement.

Limitations of the Study

1. The school district where the research was conducted has a bidding process which leads to high teacher mobility within the district.
2. High mobility rate of students between two neighboring districts which could mean students may not have participated in the ITBS assessment in both spring and fall and there could be partial test completion.
3. Accommodations for special education students may or may not have been used by students or administered properly by teachers.
4. The number of years of service required to receive tenure varies within districts and states.
5. The time teachers spent preparing students for the types of information being tested and the amount of time students spend studying the information provided.
6. Tenure in this study includes teachers who could have more than 4 years of experience in a different district. However, they have less than 5 years of experience in the study district; therefore, they are considered non-tenured.

Definitions of Terms

Academic achievement. The level of a student's performance in the core subject areas that is measured either formally (published and/or researched based) or informally (test designed by teachers based on their area of expertise) (C. Luker & Luker, 2003).

*Academic watch. S*chool fails to make AYP over a period of 4 years and is being sanctioned by the state.

Achievement test. Measures the academic gains of students. This test is normally given twice a year to document pre and post results (C. Luker & Luker, 2003).

Adequate yearly progress (AYP). Score needed for districts and schools to be reported as meeting or exceeding the state standards on the Illinois Standard Achievement Test (ISAT).

Alpha. The probability of a Type I error (Bluman, 2000).

At-risk students. Students who did not perform satisfactorily on a readiness test or assessment instrument administered during the current school year, have failed a grade level, or resides in a single parent home.

Attendance rate. The percentage of the student population that attend school on a regular basis.

Below standards. Student test scores demonstrate less than proficient knowledge and skills.

Continuum of services. "The range of placements in which students with a disability may receive some or all of their individualized education program (IEP); these range from least restrictive to more restrictive: regular classroom, regular classroom with resource room, regular classroom with special class (instructional), full-time special class, day school, residential treatment facility, and homebound instruction" (C. Luker & Luker, 2003, p. 4).

Correlation coefficient test of significance. Determines the continuous relationship between two variables.

Criterion-referenced standardized testing. Measures "whether the test-taker has sufficient knowledge or skills required for proficiency in a particular task" (Neill, 2005, p. 164).

Critical value. The value that separates the critical region from the noncritical region in a hypothesis test (Bluman, 2000).

Curriculum-based measurement. "A standardized set of measurement techniques used to index student academic performance in the basic skills areas of reading, mathematics, spelling, and written expression" (Silberglitt & Hintze, 2007, p. 1).

Degrees of freedom (df). The number of values that are free to vary after a sample statistic has been computed and is used when a distribution consists of a family of curves (Bluman, 2000).

Dependent variable. Changes due to the independent variable and cannot be manipulated.

Eligibility. The disability a student is found to have after being given a battery of psychological examinations or health issues that adversely affect their academics. Students may have the following disabilities: specific learning disability, emotional disability, cognitive disability, other health impaired, autism, speech-language impaired, hearing impaired, visually impaired, physically impaired.

Ethnicity rate. The percentage of the student population by race or ethnicity

Exceeds standards. Students whose work demonstrates advanced knowledge and skills and who creatively apply knowledge and skills to solve problems and evaluate results.

Grade equivalent." The grade equivalent is a number that describes a student's location on an achievement continuum. The continuum is a number line that describes the lowest level of knowledge or skill on one end (lowest numbers) and the highest level of development on the other end (highest numbers). . . . Grade equivalents are particularly useful and convenient for measuring individual growth from one year to the next and for estimating a student's developmental status in terms of grade level (St. Rita Catholic School, 2007, p. 21).

Illinois Standards Achievement Test (ISAT). Required, standardized Illinois state test, which is given to students in grades 3 through 8. The scores on this test determine AYP is achieved.

Independent variable. A variable that affects the outcome of the dependent variable and can be manipulated.

Individualized Education Plan (IEP). A legal document that is updated quarterly and rewritten yearly and identifies the educational needs of a student found eligible for special education services. This document includes information from the students psychological testing, the eligibility of the student, current academic performance, goals, objectives, related services the student will receive, percentage of time in special education, the extent to which the student will participate in classes with non-disabled peers, accommodations, participation in district-wide and state test, and transition services. A behavior management plan may also be included for students who exhibit behaviors that adversely impact academic achievement.

Individuals with Disabilities Education Act (IDEA). "Federal legislation, amended in 1997, that requires states to provide all children with disabilities a free appropriate public education" (C. Luker & Luker, 2003, p. 7).

Instructional special education. Students spend more than 60% of their instructional school day or more receiving special education instruction. All classes are taught by special education resource teachers with the exception of physical education

Iowa Test of Basic Skills (ITBS). A test given bi-yearly to track the progress of basic skill levels in math estimation, math concepts, math problem solving, math data interpretation, math computation, reading comprehension and skills, spelling, capitalization, punctuation, usage and expression (identifying errors in sentences and paragraphs and choosing the best and appropriate way to express an idea in a sentence or paragraph), and vocabulary at the onset and conclusion of the school year.

Line of best fit (trend line). "A line on a scatter plot which can be drawn near the points, to more clearly show the trend between two sets of data" (Reed, 2009, p. 1).

Low-income rate. The percentage of the student population who come from families receiving public aid, live in institutions for neglected or delinquent children, are supported in foster homes with public funds, or eligible for free or reduced-price lunches.

Mean. Average of a set of numbers referred to as data.

Meets standards. Student test scores demonstrate proficient knowledge and skills and effectively apply knowledge and skills to solve problems.

Mobility rate. The percentage of a student population of students who moves from school to school.

No Child Left Behind (NCLB). A mandated educational reform established by President George W. Bush. Its purpose is to ensure that all students are achieving academically. Research-based practices, highly qualified teachers, assessments based on data-driven decisions, and holding schools accountable for student performance are mandated provisions (Yell & Drasgow, 2005).

Non-tenured. Novice teachers with 1 to 3 years of teaching experience.

Norm-referenced test. An assessment in which the individual who tested is compared to a sample their peers.

Pearson product–moment correlation (PPMC). Describes the strength and direction of the linear relationship between two variables (Shifflett, n.d.).

Percent-correct score. To calculate the percent-correct score, the raw score divided by the total number of questions then the result is multiplied by 100. Like raw scores, percent-correct scores have little meaning by themselves. They tell what percent of the questions a student answered correctly on a test (The University of Iowa College of Education, n.d.).

Percentile rank. "A student's percentile rank is a score that tells the percent of students in a particular group [who received] lower raw scores on a test than the student did. It shows the student's relative position or rank in a group of students who are in the same grade and who were tested at the same time of year (fall, midyear, or spring) as the student. Percentile ranks range from 1 to 99" (The University of Iowa College of Education, n.d.). Percentile ranks should not be averaged (Chicago Public Schools Instructional Intranet [CPS Intranet], n.d.).

Quantitative variables. A variable that is numerical in nature and can be ordered or ranked (Bluman, 2000).

Raw score. The raw score is the number of questions a student answers correctly on a test, "assuming each question is worth one point. By itself, a raw score has little or no meaning. The meaning depends on how many questions are on the test and how [difficult] the questions are" (The University of Iowa College of Education, n.d., "ITBS" section).

Resource. Students receiving special education services for less than 60% of the school day.

Response to Intervention. "The level and rate of learning differences in valuating student response to both core instructional and supplemental interventions" (Silberglitt & Hintze, 2007, p. 1).

Safe harbor target. Schools where subgroups of students are not meeting AYP. If the school is able to increase the areas of deficiency by 10% and is able to meet or exceed in other academic indicators, the school will make safe harbor the following year. This keeps schools from constantly being targeted or identified as low-performing.

Scatter plot. A graph of numbers consisting of the independent and dependent variables.

Standard score (SS). The number that describes a student's location on an achievement continuum (CPS Intranet, n.d.).

Stanine score. Normalized standard scores that range from 1 to 9 and have an average value of 5 (CPS Intranet, n.d.).

Tenure. Veteran teachers with 5 or more years of teaching experience that provides teachers with the right to hold a permanent teaching position.

Truancy rate. The percentage of the student population who do not attend school on a regular basis.

Summary

Many schools in the United States are experiencing declines in student achievement and the gaps between minorities are steadily increasing. Since the development of No Child Left Behind, more and more schools have been focusing on student achievement especially in the areas of reading and math. Researchers suggest the more experience teachers have, the better insight they may gain in closing the educational gap that exists between minority students. In addition, the experience may also help those non-tenured teachers excel in their profession. This is important because educators are usually the first to spot potential or problems with student achievement.

Students are depending on the talents of teachers to take them to the next educational phase of their life. Children from diverse backgrounds, multitalented, children that are failing in one or more subjects, are economically disadvantaged, disabled, and children with English as a second language may all be recognized as gifted in some form. These gifts are usually seen, however, through the eyes of a teacher.

The review of literature in chapter 2 examines (a) urban schools, (b) NCLB, (c) ITBS, (d) teacher quality, (e) induction, (f) mentoring, (g) tenured teachers, and (h) non-tenured teachers and the implications they may or may not have on student achievement.

Chapter Two – Review of Literature

Urban Schools

Children growing up in American inner cities face numerous stressors, such as poverty and exposure to violence, that increases their risk for problems in school (Covington, Nordstrom-Klee, Ager, Sokol, & Delaney-Black, 2002). Poverty has an effect on a student's desire to learn (Dyson, Hett, & Blair, 2003). According to Pellino (2007), "Some of the factors related to poverty that may place a child at-risk for academic failure are: very young, single or low educational level parents; unemployment; abuse and neglect; substance abuse; dangerous neighborhoods; homelessness; mobility; and exposure to inadequate or inappropriate educational experiences" (¶ 2). Pellino went on to say, "Teachers [of children living in poverty] may have difficulty reaching a student's parent or guardian. They may also find the student does not complete assignments, does not study for tests, or does not come to school prepared to learn because of poverty related circumstances in the home environment" (¶ 3). Although these students are victims of the above circumstances, teachers should show empathy not sympathy. These students should be held to the same high expectation as their peers from high socioeconomic class.

Data from the 2005 United States Census indicates that more than one third of African-American children are living in poverty. Because of this, it is crucial for urban school districts to retain high-quality teachers who have the skills and aptitude to provide students with optimal environments for learning within the classroom. These schools need teachers "to provide a [more] personalized learning environment for students—especially with schools struggling to provide textbooks to all students, hot meals,

security, and janitorial services" (Klem & Connell, 2004, p. 1). Teachers should have the ability to engage students in the learning process and make it relevant to their lives (Klem & Connell, 2004). This creates a classroom environment that is safe, and learning is meaningful. Students can apply what they are learning in class. Students who feel they are a part of the school and who are active participants in their learning are more likely to have higher levels of academic achievement (Roderick & Engle, 2001; Willingham, Pollack, & Lewis, 2002). Unfortunately, urban schools are habitually unable to hire tenured teachers with the skills needed to close the achievement gap. Citing Peske and Haycock's 2006 study, the Alliance for Excellent Education (2008) stated that these schools are "generally staffed by teachers who lack the experience, qualifications, effectiveness, or retention rates needed to succeed in the classroom"(p. 1). According to Gordon, Kane, and Staiger (2006),

> The most effective teachers generally receive no incentives to work in the poorest districts. These policies are particularly problematic because there is a large gap between the most effective and least effective teachers, and the most effective teachers are underrepresented in schools serving low-income youth. (p. 1)

For this reason urban schools have the unique challenge of preparing non-tenured teachers to use culturally responsive teaching methods when educating students attending these schools (Claycomb, 2000; Haberman, 2003). Unfortunately, "in districts where highly qualified teachers are most needed, there is a significant shortage" (Sarpy-Simpson, 2005, p. 12). School districts in urban areas have a higher teacher turnover rate and suffer from an increased teacher shortage than schools located in suburban or rural areas. (Haberman, 2003; Ingersoll, 2002; Recruiting New Teachers

Inc., 2000). Literature states that "urban schools, where many students are perennial underachievers, lack the most essential resource to overcome academic underachievement: a full array of qualified teachers" (Howard, 2003, p. 143). In 2001 two urban agencies released a report which indicated the majority of large urban school districts will experience a vast amount of teacher shortages, as opposed to districts in other areas (Recruiting New Teachers Inc., 2000).

Urban school districts have higher teacher turnover rates and lack the necessary tools needed to increase student achievement (Howard, 2003). Although teachers are committed to teaching students, incentives for coming into these poor districts are lacking. For this reason, schools are challenged with preparing students for beyond the current grade level.

No Child Left Behind Act (NCLB) of 2001

"President Bush signed the No Child Left Behind Act (NCLB) of 2001 on January 8, 2002 . . . . [It] is a comprehensive and complex education law that increased federal funding by almost 25% from the previous year" (Yell & Drasgow, 2005, p. 1). It "passed by a vote of 381 to 41 in the House and 87 to 10 in the Senate" (Yell & Drasgow, 2005, p. 7).

The purpose of NCLB is to ensure that every student in the public schools is being properly educated in a safe environment with highly qualified teachers. It is the responsibility of every school district to ensure that staff are properly trained and proficient in the area in which they teach. In addition, districts are challenged to close the academic gap that exists between the ethnicity and the special education subgroups. To measure this progress, NCLB requires states to administer exams to students to determine

if academic progress is being made; this is known as AYP. Each year districts must meet a testing goal in order to make AYP. The targeted goal increases in increments of 7% each year (Yell & Drasgow, 2005). For example, for the 2005–2006 school year this urban middle school's target goal was 47%. Each additional year increases by 7% so that by the year of 2014, students will be achieving at 100% proficiency. To help schools achieve these goals, NCLB is composed of 10 sections to help districts prepare staff for success (see Table 1).

Table 1

No Child Left Behind

Title	Parts
I. Improving the Academic Achievement of The Disadvantaged	• Improving Basic Programs • Student Reading skills • Improvement Grants • Education of Migratory Children • Prevention and Intervention Programs for Neglected, delinquent, or At-Risk Children • National Assessment of Title I • Comprehensive School Reform • Advanced Placement Programs • School Dropout Prevention • General Provisions
Preparing, Training, and Recruiting High-Quality Teachers and Principals	• Teacher and Principal Training and Recruiting Fund • Mathematics and Science Partnerships • Innovation for Teacher Quality

Title		Parts
		• Enhancing Education Through Technology
II.	Language Instruction for Limited English Proficient and Immigrant Students	• English Language Acquisition Act • Improving Language Instruction Education • General Provisions
III.	21st Century Schools	• Safe and Drug-Free Schools and Communities • 21st Century Learning Centers • Environmental Tobacco Smoke
IV.	Flexibility and Accountability	• Improving Academic Achievement • Rural Education Initiative • General Provisions
V.	Indian, Native, Hawaiian, and Alaskan Native Education	• Indian Education • Native Hawaiian Education • Alaska Native Education
VI.	Impact Aid Programs	• Impact Aid Programs
VII.	General Provisions	• Definitions • Flexibility in the Use Funds • Coordination of Programs • Waivers • Uniform Provisions • Unsafe School Choice Option
VIII.	Repeals, Redesignations, and Amendments to Other Statutes	• Repeals • Redesignations • Homeless Education • Native American Education

Title	Parts
	Improvement • Higher Education Act of 1965 • General Education Provisions Act • Other Miscellaneous Statutes

Note. Although all 10 sections are of great importance, the first 7 are of direct importance to teachers because they focus on increasing student academic performance, improving low performing schools, utilizing researched based instruction, statewide assessments, students with disabilities, and English as a second language learners (Yell & Drasgow, 2005, pp. 11–13, Table 1).

Yell & Drasgow (2005) reported that "schools that fail to make AYP will receive technical assistance to improve [in the areas in which it is failing]" (p. 35). If a school fails to make AYP for 2 consecutive years, it is "identified for improvement." The state provides technical assistance and the district develops a two-year improvement plan. If a school fails to make AYP for three consecutive years, the district is obligated to provide technical assistance to help target areas of concern and also provide tutoring for students and/or public school of choice. If a school fails to make AYP for four consecutive years, the school is designated as needing corrective action such as implementing researched-based curriculum or a drastic change such as restructuring the school internally. If a school fails to make AYP for five consecutive years, the state may take over and make changes to the school's governance structure. Even with this, failing school districts must still continue to offer parents all previous remediation such as public school of choice and supplemental educational services (Yell & Drasgow, 2005).

As previously stated, the goal of NCLB is that every child will be proficient in all core subject areas, with the exception of social science, by the year 2014. To do this, every state has developed achievement standards and benchmarks. Standards must

describe what students know and will be able to do at time of testing (Yell & Drasgow, 2005). The urban school district of this study used a testing tool known as the Iowa Test of Basic Skills (ITBS). It is scored in three achievement levels: below average, average, and above average. The achievement levels also include descriptors of the competencies associated with these levels. Results are reported in a form easily read by parents, known as *performance profiles*. The performance profile describes information about the categories in which the students were tested, how each student ranks compared to all students in a particular grade, and the grade level the student performed.

To ensure that testing is valid, each school must test 95% of all subgroups of students, and adhere to strict testing guidelines. The results of the test are used to identify individual strengths and weakness of students tested as well as how the district is performing academically. Although students receiving special education services have an individual educational plan, they are held to the same standards as other students of their grade level (Yell & Drasgow, 2005).

Students with limited English must also take these assessments but may have the following reasonable accommodations:

- native-language assessments
- extra time
- small-group administration
- audio-tape instructions in the native language
- use of dictionaries
- use of calculators
- breaks between sections

The skills of teachers are also an important factor of NCLB (Yell & Drasgow, 2005, p. 45). Core subject teachers must meet certain requirements to be recognized as a highly qualified teacher. Core subjects are defined as reading, math, grammar, science, and social science. First, teachers must hold a valid college degree. Second, teachers must hold certification in the state and the area they teach. Third, teachers must be able to demonstrate mastery in their area of expertise. This is for both the general education teachers and the special education teachers as a whole. No Child Left Behind is very clear as to the guidelines of highly qualified teachers. In fact, NCLB provides Title I funds to school districts to assist them in meeting No Child Left Behind requirements by allowing them to utilize this funding for the purpose of professional development geared toward improving teacher quality (Yell & Drasgow, 2005).

Recent complaints of the rigid legislature has allowed for a pilot program through No Child Left Behind. Six out of 17 states, including the state of the study school, will be piloting this program and will have an additional year to design programs that are tailored to meet the problems the pilot schools are faced with when it comes to academic achievement. Superintendents must focus on the schools in the district that are in the worst shape; whether school missed making AYP by a significant percentage or not, only the schools that need more severe actions will be utilizing the additional resources tailored for their schools.

In addition to the pilot program, the state wants to introduce the tutoring portion of the standards prior to the third year of schools not making AYP and categorize schools differently. If subgroups are not making AYP, they will be categorized as focused. If the entire student population (all subgroups) is not making AYP, they will be categorized as

comprehensive. The U.S. Department of Education hopes this form of flexibility will allow schools to differentiate and help underperforming schools. Although the some leaders in the pilot schools feel this new initiative is a step in the right direction, the concern is that the focus is still in the areas of reading and math and making 100% progress by the year 2014. (Richards, 2008, ¶ 1–27).

Neill (2005) said that NCLB places too much emphasis on standardized testing, causing educators to focus more on test preparation, and "places unrealistic demands on schools, serving low income students" (Neill, 2005, p. 162). According to Neill (2005), state standardized test are norm-referenced, comparing students to their peers, and he feels that criterion-referenced testing should be used instead, measuring knowledge and skills to determine proficiency. Neill also notes that schools focus more on reading and math, and other subjects, such as social studies and science, are not being addressed as often. Another negative characteristic of NCLB, as noted by Neill, is that schools that are deemed "high achieving" one year, may fall under the "needs improvement" category the next school year, and as a result, sanctions, such as privatizing school management, firing staff, state takeovers, and other measures, may go into effect. These sanctions have no proven record of success. As noted by Neill, a sanction may force schools and teachers to eliminate methods that are effective and adopt a curriculum mandated at the state level (Neill, 2005).

NCLB does not take into account impoverished schools. "An impoverished environment limits the ability to succeed in school . . . . [because] poor children move more frequently . . . suffer more medical and dental problems, [which may affect schoolwork from lack of healthcare] . . . and have less access to non-school sources of

academic forms of learning, such as museums, or high-quality after-school or summer programs" (Neill, 200t, p. 167).

The initiative of NCLB is to improve student achievement. This is accomplished by providing state funds to increase teacher quality through professional development while still holding stake holders accountable for student's academic success. Rod Paige, the Secretary of the U.S. Department of Education, stated that "to improve the quality of education we offer America's students, we need to put more well-qualified teachers in America's classrooms" (Yell & Drasgow, 2005, p. 45). Perhaps school districts should focus on recruiting well-qualified teachers and provide high-quality professional development opportunities for those tenured and non-tenured teachers.

Iowa Test of Basic Skills

Some current examinations of classroom teaching in light of standardized testing suggest that teachers quite dramatically change their practice in response to statewide testing (Hammerness, 2006). The ITBS is a norm-referenced assessment administered twice yearly to track the progress of basic skill levels in math estimation, math concepts, math problem solving, math data interpretation, math computation, reading comprehension and skills, spelling, capitalization, punctuation, usage and expression (identifying errors in sentences and paragraphs and choosing the best and appropriate way of expressing an idea in a sentence or paragraph), and vocabulary at the onset and conclusion of the school year. Teachers at Wirth Middle School in Cahokia, Illinois, use the data gathered from ITBS scores to drive classroom instruction and determine if a student is promoted or retained.

> An achievement battery . . . is a collection of tests in several subject areas, all of which have been standardized with the same group of students. That is, the norms for all tests have been obtained from a single group of students at each grade level. This unique aspect of the achievement battery makes it possible to use the scores to determine skill areas of relative strength and weakness for individual students or class groups, and to estimate year-to-year growth. (The University of Iowa College of Education, n.d., "Interpreting Test Scores" section).

The University of Iowa College of Education (n.d., "Appropriate Purposes for Testing" section) states that "The main purpose of using a standardized achievement battery is to provide information that can be used to improve instruction." ITBS was designed

1. to help teachers determine the extent to which individual students in their classes have the knowledge and skills needed to deal successfully with the academic aspects of the instructional program the teachers have planned;
2. to estimate the general developmental level of students so that teachers may adapt materials and instructional procedures to meet individual needs;
3. to identify each student's areas of greatest and least development for use in planning individual instructional goals and approaches;
4. to provide achievement information that makes it possible to monitor year-to-year developmental changes;
5. to provide information for making administrative programming decisions that will accommodate developmental differences;

6. to identify areas of relative strength and weakness in the performances of groups (e.g., classes), which may have implications for curriculum change -- either in content or emphasis -- as well as for change in instructional procedures;
7. to provide a basis for reports to parents that will enable home and school to work together in the students' best interests. (“Appropriate Purposes for Testing” section)

The ITBS student score report displays percentile rank, standard score, raw score, percent-correct score, and grade equivalent. “Percentile rank shows a student’s relative standing or rank in a group of 100” (CPS Intranet, n.d., p. 2). “The developmental standard score, [also] referred to as a standard score, is a number that describes a student’s location on an achievement continuum” (CPS Intranet, n.d., p. 2). “The number of questions a student gets right on a test is the student’s raw score,” and has little meaning by itself (CPS Intranet, n.d., p. 1). “When the raw score is divided by the total number of questions and the result is multiplied by 100, the percent-correct score is obtained,” and also has little meaning by itself (CPS Intranet, n.d., p. 1).

To determine a student’s academic achievement level using the ITBS, the stanine score is used. Stanine is short for standard nine. The name comes from the fact that stanine scores range from a low of 1 to a high of 9. For instance, a stanine score of (a) 1, 2, or 3 is below average; (b) 4, 5, or 6 is average; and (c) 7, 8, or 9 is above average. According to Sevier County Special Education,

> If a child achieved a stanine score that was below average in a particular area, the test revealed an area in which the child needs improvement. If the child achieved

> an average stanine score, the test indicated that he or she performed at about the same level as other students who took the test. If the child achieved a stanine score that is above average, the test results mean that he or she performed better in that area than other students who took the test. (Sevier County Special Education, n.d., ¶ 1)

The scores can also be considered groupings of national percentile ranks, as Table 2 shows (CPS Intranet, n.d., ¶ 13).

Table 2

Explanation of Iowa Stanines and Percentiles

Percentile	1–4	5–11	12–23	24–40	41–59	60–76	77–88	89–95	96–99
	Very Low	Low	Low	Low Average	Average	High Average	High	High	Very High
Stanine	1	2	3	4	5	6	7	8	9

The ITBS is a norm-referenced test given twice a year to track student academic achievement in the areas of reading, math, and language. Schools that gather this type of information on their students use the information to gain insight on the strengths and weaknesses of student performance, the strengths and weaknesses of groups of teachers by grade level, tenure status, and content area. In addition, this test is used to provide guidance in the area of curriculum and instructional procedures to enable students to receive the best possible form of instruction (The University of Iowa College of

Education, n.d.). Students are scored based on a stanine that measures whether the student scored below average, average, or above average on the test.

Teacher Quality

Teacher is defined by the *Encarta World English Dictionary* (Teacher, 2009a) as "an occurrence, idea, or object from which something may be learned; somebody who teaches." The *Merriam-Webster Thesaurus* (Teacher, 2009b) used synonyms such as *educator, tutor, instructor, coach, trainer*, and *lecturer*. These terms may have been directly linked to student achievement. Years of service or a teacher being tenured or non-tenured is often attributed to teacher quality.

Years of study and research indicate the primary responsibility of any educator is to help students understand and develop their talents and abilities. It is the job of the educator to do what is best for all students. Therefore, the link teachers utilize to connect to student achievement is important, because it allows educators to continue their professional growth, and the knowledge gained has a positive impact on the learning process of students. In addition, the more knowledge students acquire, the more professional development is needed by the educator. It is important that teachers plan professional growth accordingly so that the knowledge acquired advances not only their learning experience, but can be implemented in the classroom to advance the learning experience of their students also. Carefully planned professional development may help teachers to think more critically about instruction and enable teachers to implement the new skill acquired. This may also help teachers recognize the talents of students, nurture that talent, and expanded on the talent. Both tenured and non-tenured teachers may

benefit from high-quality professional development. This link connecting effective teaching, student achievement, and student-teacher engagement is illustrated in Figure 1.

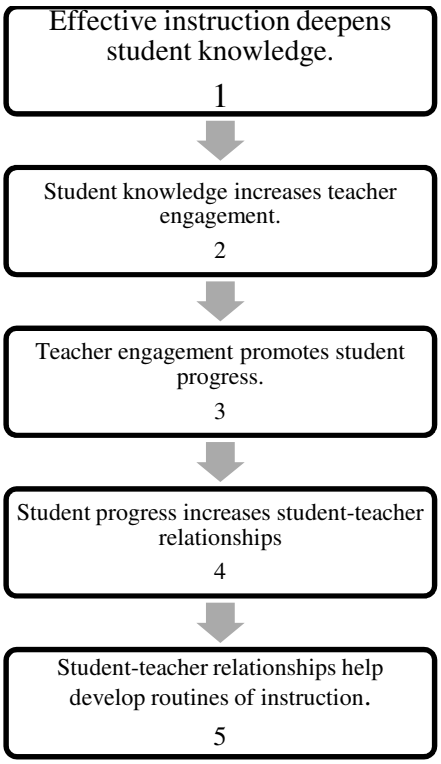

Figure 1. Linking teacher and student experiences.

T This link makes teachers think about the many experiences they encounter when teaching and learning. According to Hirsch (2008), President Randi Weingarten of the United Federation of Teachers said,

> Teachers are not afraid of accountability, but the measures have to be fair and accurate. There is no independent or conclusive research that shows you can accurately measure the impact of an individual teacher on a student's academic progress. . . . Look how many variables go into student achievement and how inexact the test results are. (pp. 1, 2).

Teacher quality is important and can be critical to student academic success. Educators must understand that they are the implementers of curriculum and students are the receivers. Teachers should be able to identify and communicate what knowledge is important and focus on providing key concepts to the students.

Teacher qualification can only be attributed to a small percentage of the difference in achievement that students exhibit. For example, districts pay close attention to qualifications when hiring and paying teachers. Post-baccalaureate study, advanced degree, and documented experience in the classroom are nearly the sole determinants of pay in traditional compensation schemes. Furthermore, evidence suggests that the qualifications of teachers also differ, on average, in low-income urban neighborhoods (Murnane & Steele, 2007).

Research has shown that students from low-income families are disproportionately taught by less-qualified teachers (Learning Point Associates, 2007). NCLB requires that districts who receive Title I funds are mandated to craft a plan to ensure that minority children and children from families of low socioeconomic status are not taught by non-tenured, unqualified, or underqualified teachers at higher rates (Peske & Crawford, 2007). All students deserve to receive instruction from highly qualified educators.

> NCLB defines a highly qualified teacher as a teacher who holds a bachelor's degree or higher from a 4-year institution, has content knowledge required to teach core academic subjects, and, usually based on a test of their content knowledge, a state teaching license. (Amrein-Beardsley, 2006, p. 1)

Highly qualified teachers are tenured, "have a strong grasp of the content knowledge needed to teach core academic subjects . . . [and] traditional teaching certificates" (Amrein-Beardsley, 2006, p. 1)

Research studies have demonstrated that when students who were initially at risk are consistently instructed by highly effective teachers, they make significant gains and the achievement gap is closed (Learning Point Associates, 2007). It was determined by Grissmer, Flanagan, Kawata and Williamson (2000) that teachers with work experience in the area they teach have a greater impact on student achievement than teachers with master's degrees. Goldhaber (2002) found that "teachers' knowledge of their subject matter, as measured by degrees, courses, and certification in that area, is associated with high performance" (p. 4).

In 2003 Rice conducted a study to "examine the impact of teacher characteristics on teacher effectiveness in order to draw conclusions about the extent to which these characteristics are, in fact, linked with teacher performance" (¶ 1). The study focused on "teacher experience, teacher preparation programs and degrees, teacher certification, teacher coursework, and teachers' own test scores" (¶ 1). Some of the highlights of the empirical evidence of Rice's study include:

- Several studies have found a positive effect of experience on teacher effectiveness; specifically, the "learning by doing" effect is most obvious in the early years of teaching. (¶ 4)
- Research suggests that the selectivity/prestige of the institution a teacher attended has a positive effect on student achievement, particularly at the

secondary level. This may partially be a reflection of the cognitive ability of the teacher. (¶ 5)

- Studies show little clear impact of emergency or alternative-route certification on student performance in either mathematics or science, as compared to teachers who acquire standard certification. (¶ 6)
- Teacher coursework in both the subject area taught and pedagogy contributes to positive education outcomes (¶ 7)
- Pedagogical coursework seems to contribute to teacher effectiveness at all grade levels, particularly when coupled with content knowledge. (¶ 7)
- Tests that assess the literacy levels or verbal abilities of teachers have been shown to be associated with higher levels of student achievement. (¶ 8)
- Studies show the National Teachers Examination and other state-mandated tests of basic skills and/or teaching abilities are less consistent predictors of teacher performance. (¶8)

Schools in impoverished areas have a higher number of non-tenured teachers than in affluent schools (Peske & Haycock 2006; Jepsen & Rivkin, 2002; National Center for Education Statistics, 2000). Research has shown that the most struggling students are placed in classes with ineffective and non-tenured teachers (Babu & Mendro, 2003). Sowell (2005) said that American public education faces crisis because of low-qualified teachers, and the people become certified teachers even if they have below-average test scores and poor grades in college.

According to Sowell (2005), “6 percent of certified teachers received their certificate through alternative routes,” and this causes states to maintain “artificial

restrictions on the supply of new teachers. Sowell further states that "these artificially created shortages are then used by teachers' unions to argue for higher pay" (p. 46). Evidence suggests that teacher quality is the leading factor in student achievement. "Studies that use value-added student achievement data have found that student achievement gains are much more influenced by a student's assigned teacher than other factors like class size and class composition" (Darling-Hammond & Youngs, as cited in Wong, 2004, p. 1).

Bethell (2005) noted that the Hoover Institution's Koret Task Force on k–12 Education investigated the school systems in the United States:

> Some of the main Koret Task Force findings are as follows: "The United States continues to fall behind many other countries. Scholastic Aptitude Test [SAT] scores remain well below their 1970 levels. The school year is about seven days shorter than formerly. The share of teachers with a master's degree in a particular subject area (rather than in education) has fallen from 17 percent in 1982 to 5 percent now. Teachers' salaries rose from $19,000 a year to $35,000 in 2000. And their fringe benefits have increased rapidly. (p. 17).

The goal of closing the achievement gap can only be attained if students have high-quality teachers (Amrein-Beardsley, 2006). Good and bad teachers can be identified after only a year or two in the classroom (Gordon, Kane, & Staiger, 2006). Utilizing test scores provide district leaders with data to measure teacher quality based on student achievement (Amrein-Beardsley, 2006).

Over the past several years, the answers to teacher quality questions have evolved into four categories: the depth of teachers' knowledge of the content they teach, the

pedagogical skill with which they instruct their students and manage their classrooms, the social and political values that underlie their pedagogy, and the consistency with which their students achieve high scores on achievement tests (Hammerness, 2006). Sowell (2005) suggests that "research shows that teachers' actual knowledge of the subject matter is what benefits students" (p. 45). Many people are drawn into teaching because they see it as a noble profession, and they have powerful vision regarding what they hope to accomplish in that work.

The Illinois Education Research Council (DeAngelis, K. J., Presley, J. B., & White, B. R., 2005) created a Teacher Quality Index for every school in the state. They found teacher quality varies depending on the school demographics. The council noted that the 25% of schools with the highest number of minority students attended 61% of the schools with teacher quality in the bottom 10% of the state. Of these high-minority schools, 88% had teacher quality in the bottom 25% of the state. In contrast, of schools that had the fewest minority students, only 11% had the worst teacher quality, and only 1% was in the bottom 10% (Peske & Haycock, 2006). Sowell (2005) states that the problem in the education field is "not highly qualified teachers, [but rather] getting teachers who are even decently competent" (p. 44).

Sowell (2005) also stated that training for teacher education is "so burdensome and substandard that they [do not attract] the best students. As a result, highly qualified, intelligent people tend to avoid the field of public school teaching" (p. 43). Bethell (2005) stated that inefficient bureaucracies, irresponsible teachers' unions, lightweight curricula, and lack of teacher preparedness have created an ongoing crisis in American education. This can also lead to ineffective teachers receiving tenure.

Teachers are charged with increasing student achievement. Over the past several years, the answer to teacher quality has evolved around four essential questions:

- What is your content knowledge?
- How advanced are your skills?
- What are your social and political values?
- Do you have evidence of student achievement? (Hammerness, 2006)

There are many qualities of a good teacher. but the emphasis is placed on student achievement. Quality teachers must be able to create opportunities for students to learn at high-performing levels in the classroom and on standardized tests.

Induction

Induction is a support for non-tenured teachers to foster success when helping them transition from student teaching to their own classroom (Bartell, 2005; Brewster & Railsback, 2001; Menchaca, 2003; Veenman & Denessen, 2001). Induction programs were introduced to the education field due to the low retention of non-tenured teachers (Simmons, 2000). According to Sarpy-Simpson (2005), “research supports the idea that induction programs can be effective as recruiting incentives for school districts” (p. 19). Induction, as defined by research, are useful strategies that assist non-tenured teachers transition from student teaching to full-time teaching positions in an effort to retain quality novice teachers (Bartell, 2005; Brewster & Railsback, 2001; Menchaca, 2003; Veenman & Denessen, 2001). School principals should be required to provide non-tenured teachers with an induction plan that focuses on specific goals and to also assist teachers in developing their skills throughout their first years teaching (Wilbur & Zepeda, 2004).

Teacher induction should include, as orientation to the school, matched and trained mentor teachers to lend individualized guidance to new teachers, release time for multiple observations and feedback, common planning time to encourage collegial interaction, ongoing professional development opportunities targeted to issues that new teachers faces, as well as ongoing formative evaluation.

Adequate times for collaboration with other teachers are necessary for successful induction programs (Sarpy-Simpson, 2005). It is imperative that feedback provided from mentors to mentees during collaboration is non-threatening for successful collaboration (Danielson, 2002; White & Mason, 2001). Induction programs are used in hopes of retaining novice teachers (Simmons, 2000).

Induction programs, at the building level, are the principal's responsibility to provide. This is because the principal will know common plan times of teachers and will be able to match non-tenured teachers with tenured teachers. It is also necessary to provide time for collaboration to fully address the problems new teachers may face. Although induction programs are used to assist non-tenured teachers, it does not take the place of ongoing professional development.

Mentoring

When focusing on inducting non-tenured teachers into the field of education, mentoring continues to be an important topic of discussion. Providing a non-tenured teacher with a mentor goes beyond supporting them to make it through the first year of teaching. Mentoring must be well planned, have the support of administration, and have components of research and follow-up. Non-tenured teachers should have the opportunity to collaborate and investigate several methods of teaching (Feiman-Nemser,1996).

Having a mentoring program to assist teachers with these challenges is beneficial because teachers are faced with classroom challenges such as socioeconomics, English as second language learners, special education students, and unknown home-life situations (Colley, 2002). According to Feiman-Nemser (1996, ¶ 2),

> Since the early 1980s, when mentoring burst onto the educational scene as part of a broad movement aimed at improving education, policymakers and educational leaders have pinned high hopes on mentoring as a vehicle for reforming teaching and teacher education.

Concerned about the magnitude of teachers that leave the educational field in their first 3 years of teaching, and knowing the types of problems novice teachers face, educational leaders, such as policymakers, saw the need for onsite support. Novice teachers were provided with assistance during their first year of teaching through mentors with hopes of retaining educators in the profession for a longer period of time (Feiman-Nemser, 1996).

Finding an experienced teacher to support a novice teacher can prove to be a daunting task (Gagen & Bowie, 2005). Gagen and Bowie also noted that there are an inadequate number of educators teaching the same content in the same school to mentor the new teacher. In addition, having effective volunteers for mentoring novice teachers and providing them with high-quality training is critical to the success of the mentee.

Johnson et al. (2006) stated that providing a new teacher with a mentor can prove to be invaluable, but commented that one-to-one mentoring fails due to lack of common planning time, incompatible personalities, and divergent teaching styles. Non-tenured or new teachers are usually mentored by veteran teachers. It was found that mentor teachers

lack sufficient training (Feiman-Nemser,1996). As a result, non-tenured teachers are susceptible to learning ineffective strategies and bad habits from their mentor teachers.

Feiman-Nemser (1996) suggests:

1. New teachers should not be mentored by the supervisor or lead of the department.
2. Outlooks on pedagogy and other interests should be considered.
3. Mentor teachers should teach the same content and grade.
4. Mentors need to understand that they are helping the non-tenured teacher become an effective educator.

In addition, Halford (1999) suggested that mentoring programs should be supported by the district and building leadership as well as district and building funds. These programs should also allot time for the novice teacher and the mentor to meet regularly, and the mentor should be compensated for devoting time and expertise. Although mentoring is utilized to support non-tenured teachers, it should also be noted that teachers and staff members at any level can benefit from this structured working relationship (DePaul, 2000).

If a formal mentoring program is not available in a school or district, there are many things tenured teachers and administration can do to make non-tenured teacher support a priority. For instance DePaul (2000) wrote:

1. Help non-tenured teachers find materials for needed instruction.
2. Allow non-tenured teachers time to observe classes.
3. Schedule non-evaluative walk through observations on non-tenured teachers' classes.

4. Share materials.
5. Be available to mentor a non-tenured teacher.
6. Assist with difficult classes by modeling and providing information on best practices.

Offering this level of support increases the positive experiences during the first years of teaching.

With mentoring, teachers are able to develop tools for self improvement, collaboration, and build a support team that emphasizes the importance of skill developing (E. M. Weiss & Weiss, 1998). Mentoring, like induction programs, can be very useful to new teachers. With the ever changing needs of students, mentoring can help advance the teaching career of educators as a whole. However, mentoring is not the sole solution to retaining new teachers. Beginning teachers need time to examine the teaching practices of other teachers, opportunities to collaborate, and the support of building administration and other staff members (Rubenstein, 2007). The time teachers spend collaborating should be planned, it should be with teachers instructing identical content and there should be follow-up to ensure the effectiveness of the time used; this will reduce the chances of the teacher leaving the profession (Rubenstein, 2007). Enhancing teacher support will likely increase the rate of teacher attrition (Ingersoll, 2002). Studies have also revealed that when new teachers are provided with extensive support they are less likely to exit the field than new teachers with no support (Learning Point Associates, 2007).

Tenured Teachers

Tenure is a tool for schools to attract and sustain talented teachers and scholars, and without it, these talented educators would seek other employment (Benjamin, n.d.). Much of the variation in teacher quality is the product of the tenure system (Winters, 2008). Research found that of the 95,000 tenured teachers in Illinois, only two on average are fired each year because of poor performance (Winters, 2008). Opponents of the system criticize the near-permanent status associated with teacher tenure as archaic, problematic, and oftentimes complain that it provides only sparse opportunity for newer untenured faculty (Kruszyna, 2006). Critics also believe that ineffective teachers misuse the tenure system, which negatively impacts student achievement (Institute of Governmental Studies, 2006). Goldhaber (2002) stated

> The compensation structure [which is associated with tenure] does not provide policy makers with tools to address areas of shortage, to reward job performance or the acquisition of skills deemed to be important, or to compensate for the difficulty of a teaching assignment. (p. 6)

Thirty percent of the nations teachers were 50 years of age or older at the beginning of the new century. This also implied that nearly one half of the current teaching force will leave the classroom by 2010 (Kantrowitz, 2000; Johnson et al., 2006). Another reason teachers leave is the need for an increase in salary. But just as many teachers, if not more, depart due to perceived lack of support from building principals, negative school climate, or ineffective leadership (National Center for Education Statistics, 2006).

Sarpy-Simpson (2005) conducted a study in an effort to examine the perceptions of novice and veteran teachers and the role of the principal in the retention of urban

novice teachers. The study took place in a large urban environment. The school district was comprised of 62 schools operated by one superintendent and four assistant superintendents, with a population of 56,127 students. Of those students, 76% were economically disadvantaged, and 24.9% were in the category of limited English proficient. The study included data obtained from a random sample of 15 of the 26 elementary schools in the district. The research then created a questionnaire based on the areas of concern for novice teachers. The results revealed that novice teachers perceived that the principal should provide professional development opportunities, establish guidelines for discipline in the classroom, suggest strategies for use in the classroom, provide teacher and student supplies, and provide teachers with new trends in curriculum and instruction in an attempt to retain non-tenured teachers. Results also revealed that tenured teachers agreed with non-tenured teachers, and they also believed the principal should involve teachers in conducting workshops and in services.

> In regards to laws and tenured teachers, Lohman (2002) reports that tenured teachers have their contracts automatically renewed from year-to-year; can be dismissed only for six statutorily specified reasons; and have the right to (1) bump untenured teachers in positions for which they are qualified if their positions are eliminated, (2) written notice of the reasons for termination, (3) a termination hearing before the board of education or an impartial hearing panel, and (4) appeal the results of the hearing to Superior Court. (¶ 3)

Non-Tenured Teachers

Ladson-Billings (2001) suggested that non-tenured teachers have something to teach those who educate them, and that by listening carefully to their voices, professors

of education will gain insight into new teacher experiences. “Isolation can occur when [non-tenured] teachers are not paired with a mentor on the same planning schedule” (Sarpy-Simpson, 2005, p. 29). Principals are the key players in the success of novice teachers (Sarpy-Simpson, 2005). Research revealed that principals can assist in the retention of novice teachers by offering support such as a teacher induction program (Britton, Raizen, Paine, & Huntley, 2000; Carter & Francis, 2001; Colley, 2002).

Data indicates that 20% to 50% of teachers leave within the first 5 years of teaching because of issues related directly to the teaching experience. (Danielson, 2002; Jorissen, 2002). Research has shown that it takes non-tenured teachers at least 5 to 6 years to become confident and effective with the rules and procedures in their classroom, develop interesting, highly organized and effective lessons, and become fully intergraded in the culture of the school (Glasgow & Hicks, 2003). Mastery of these skills takes several years and may result in non-tenured teachers becoming frustrated and leaving the teaching field (Freiberg, 2002). Before reaching this level of frustration, Freiberg and Driscoll (2000) suggest that novice teachers begin with research-based instructional strategies as a foundation. They theorize that research-based strategies will help new teachers to “build pedagogical repertoires as rich as those of the best veteran teachers, [and] in less time” (Freiberg, 2002, p. 60).

Non-tenured teachers quickly find the theories they learned via university courses do not help them with the daily classroom routines (Good & Brophy, 2002). Because of non-tenured teachers’ unrealistic expectations, classroom management is problematic (Boreen & Niday, 2000; Ingersoll, 2002, 2003). Along with classroom management difficulties, novice teachers struggle with lesson planning and time management

(Hertzog, 2002). “Due to inexperience, [non-tenured] teachers often become overwhelmed with day-to-day challenges” (Sarpy-Simpson, 2005, p. 5). When appropriate training and support are provided, school districts are more likely to retain non-tenured teachers who will provide quality instruction to students (Menchaca, 2003; Odell & Huling, 2000).

Non-tenured teachers face challenges because of (a) inadequate materials and supplies (Howard, 2003); (b) lack of support from colleagues and principals (Hertzog, 2002; Ingersoll, 2002, 2003); and (c) difficult teaching assignments (Justice, Greiner, & Anderson, 2003). When the needs of non-tenured teachers are not addressed, they face challenges that could lead to their exit from the teaching profession (Sarpy-Simpson, 2005). According to the Virginia Department of Education (2000):

> The reality of work in a public school classroom—applying theoretical knowledge, developing effective instructional strategies, meeting individual student's [sic] needs, incorporating changing curriculum frameworks, developing high stakes assessment, integrating emerging technology, and remaining sensitive to societal issues—may be one of the most challenging transitions faced by teachers in their entire professional careers. (p. 6)

Johnson et al. (2006) stated that teachers are embarking on the teaching experience in a different context than their successors, and have many more career options than previous generations. Teachers with higher self-efficacy are more likely to be effective in their classrooms by illustrating confidence in teaching the content, promoting enthusiasm for learning, using research-based instructional methods, and creating a motivational environment of respect and rapport (Anthony & Kritsonis, 2007). Additionally,

non-tenured teachers' confidence and success is closely related to the positive relationships and support of school personnel (Anthony & Kritsonis, 2007; Woolfolk, 1990). Woolfolk (1990) states novice teachers' self-efficacy is due to the relationship between staff and administration.

> Despite clear evidence that brand-new teachers are not as effective as they will eventually become, students in high-minority and high-poverty schools are disproportionally assigned to teachers who are new to the profession. Students in high-minority schools are assigned to [non-tenured] teachers at twice the rate as students in schools without many minority students. Similarly, children in the highest-poverty schools are assigned to [non-tenured] teachers almost twice as often as children in low-poverty schools. (Peske & Crawford, 2007, p. 1)

Laws for non-tenured teachers state, "Untenured teachers must be (1) employed under a written contract; (2) notified by April 1 if their contracts are not being renewed for the following year; (3) given written reasons for termination or nonrenewal on request; (4) allowed a hearing before the board of education or an impartial hearing panel on the termination; and (5) if the termination is for moral misconduct or disability, granted the right to appeal to Superior Court" (Lohman, 2002, ¶ 4).

Special Education

The decision for educational placement can be a struggle for parents, students, and the educational team involved. It is important to put students' educational needs first. However, students' perceptions toward special education placement is often negative. It is with this thought that Public Law 94-142 (Education for All Handicapped Children Act of 1975) was created. It ensures that all students who are eligible for special education

services are placed in the least restrictive environment. Diagnosis and remediation of learning difficulties involve determining the nature of the difficulties, determining the factors causing them, and applying remedial procedures (Wiles & Bondi, 2004). There are several steps involved before qualifying for special education.

The EAHCA of 1975, now codified as the Individuals with Disabilities Education Act (IDEA) of 1990, mandated free appropriate public education for children with disabilities in a general education setting and identification of students for special education services through an evaluation (Wiles & Bondi, 2004). This bill also mandated that students receive special education and related services in the least restrictive environment. Because of EAHCA and IDEA, a team of school staff and parents look at the evaluation data and consider most restrictive and least restrictive environments. All students must be evaluated triennially (Wiles & Bondi, 2004), and their IEP should be reviewed not less than annually.

The IEP is a legal document that "[ensures] educational programs are tailored on an individual basis to the needs of the handicapped students" (Wiles & Bondi, 2004, p. 132). The IEP must include (a) current levels of students' academic performance, (b) annual goals, (c) short-term benchmarks, (d) documentation of the special education services to be provided, (e) minutes per week of special education and related services, (f) percentage of time in general education setting, (g) anticipated initiation and duration dates, (h) criteria for determining progress, and (i) a statement explaining how the student's disability adversely affects his or her ability to maintain satisfactory progress in a general education setting (Wiles & Bondi). Along with being reviewed annually, IEPs must include (a) parental involvement, (b) a transition plan, (c) a functional behavioral

analysis, (d) a behavior intervention plan for students with behavioral problems, and (e) accountability for learning (Wiles & Bondi). Members who must be present for an IEP meeting include a representative of a public agency, the student's teacher, the student's parents (parents also have the right to invite individuals), and the child, when appropriate (Wiles & Bondi).

When students are found eligible for special education services, they can qualify if the following disabilities adversely affect their academic achievement: cognitive disability, speech-language impaired, hearing impaired, specific learning disabilities, emotional disability, visual impairment, or physically handicapped (Wiles & Bondi, 2004). Students may also qualify for special education services if they have a medical condition which adversely affects their academics. They will qualify under the eligibility of other health impaired.

Although students are evaluated for special education services, they are still required to participate in district-wide assessments with accommodations. Students with severe and profound cognitive disabilities are assessed via alternative assessments. The students at Wirth Middle School participate in the ISAT and the ITBS.

Struggles with academics and behavior issues often lead to students being considered for special education services. Poverty affects child development, but most importantly, it hinders school achievement and other academic-related behavior (Dyson, Hett, & Blair, 2003). Specifically, African-American males represent a disproportionate number of students in special education programming. "Black children are far more likely than whites to grow up in extreme poverty. That would make them more prone to learning disabilities that may be associated with inadequate pre-natal [*sic*] care, poor

nutrition, drug and alcohol consumption during pregnancy, or childhood environmental hazards such as toxic lead paint" (McNally, 2003 p. 2). This racial inequality decreases the chance that these students will graduate from high school and gain meaningful employment, and it increases the chance that they will have encounters with the criminal justice system (McNally, 2003). National surveys administered by the Office of Civil Rights of the U.S. Department of Education in 1970 revealed that "African-American children [represented only] 16 percent of total school enrollment, but [they make up] 38 percent of the students [identified as] mentally retarded" (McNally, 2003, p. 1). In 2003 African-American students constituted 17% of the total student population, but they made up 33% of children who were labeled with a cognitive disability. Blacks are 30% more likely to be made eligible for special education due to a diagnosed specific learning disability. "Nationwide, Blacks are nearly three times more likely to be identified as mentally retarded than white students and nearly twice as likely to be labeled as emotionally disturbed" (McNally, 2003, p. 1).

By creating various ways to differentiate instruction for special education students, educators are providing students with the necessary tools to be successful in either the general classroom setting or through traditional pull out services. The teacher's goal is to focus on the student's current level of performance as indicated in the student's IEP and increase academic performance while instilling traits of a lifelong learner. Regardless of the student's academic differences, a student can and is expected to master the concepts being taught and tested.

Special Education Resource Students

Sapon-Shevin (2007) reported that all schools should be able to include students with disabilities in the general classroom setting with general education students. "Including special education students in 'regular' classes is a process many educators fear will be difficult, time-consuming, and yet another burden for teachers weighted down by mandates. Educators and others in society, though, have to start viewing inclusion as a right and a social justice issue, not just an educational concern" (Sapon-Shevin, 2007, p. 1). Incorporating special education students in the general classroom setting helps all students. It teaches children diversity and helps them work together. It also acknowledges that the world is filled with people that are different from us and prepares students to ready themselves for a big world.

Since the start of inclusive services, teachers have worked hard to provide resource students with special education services in the general education classroom. Some things include intensive one on one instruction, differentiating instruction, and utilizing supplemental resources to meet the needs of a wide range of learners (Sapon-Shevin, 2007). However, IDEA, as amended in 2004, does understand that students with disabilities may not be successful in the general classroom setting. Therefore, IDEA requires school districts to have a continuum of alternative placements available for special education resource students extending from the general education classroom to residential settings. The continuum provides a guideline in which the principle of IDEA can be followed (Stout & Huston, 2007). The principle is to educate as many special education resource students as possible in the general classroom setting, while still meeting their individual needs. Using the continuum, students are most likely

to be placed in their least restrictive environment with an educational program most suited for their needs (Stout & Huston, 2007).

Resource students in this urban school district are sometimes pulled from their general education classes to provide services in areas that the student require more individualized learning and/or structure that they are not able to receive in the general classroom setting. These services are determined by the student's IEP. However, this must be done so as to not interrupt the general educational process of the resource student or general education students' learning. In this urban school district, schedules are created to include the resource teacher in the student's everyday schedule (see Table 3).

Table 3

Student Resource Class Schedule Versus General Class Schedule

Student A Schedule - Resource	Student B Schedule – General
1st Hour – Grammar/room 32	1st Hour – Grammar/room 32
2nd Hour – Physical Education/Gym	2nd Hour – Physical Education/Gym
3rd Hour – Social Science/room 34	3rd Hour – Social Science/room 34
LUNCH	LUNCH
4th Hour – Math Resource/room 22	4th Hour – Math/room 30
5th Hour – Reading Resource/room 22	5th Hour – Reading/room 33
6th Hour – Science/room 31	6th Hour – Science/room 31

By providing the resource student with a schedule that includes his resource teacher being on a similar schedule as the student's general education teacher, the other students in his class are not disrupted by his leaving and returning to the general education classroom setting. Another option this district utilizes is co-teaching. Co-teaching is another means to addressing the needs of special education students in the general classroom setting. The co-teacher works with the general education teacher to provide instruction that is more tailored to meet the needs of the resource student by utilizing various strategies and providing extra help as needed.

Co-teaching is considered a valuable option for districts that cannot afford to hire a large number of special education teachers but want to maintain a highly qualified teacher in the classroom to make sure the students' educational needs are being met as outlined in the student's IEP (Scribd, 2009). With co-teaching there is no need for a separate schedule, and it provides the resource student with different types of instruction delivery, peer collaboration, and intensive instruction. There are five keys to co-teaching:

- Know what co-teaching is and when it is needed.
- Recognize that co-teaching is a marriage and you are the matchmaker.
- Make scheduling a priority.
- Planning is critical.
- Monitor success, give feedback and ensure evidence-based practice. (Scribd, 2009, pp. 1–2).

General education teachers, however, are often discouraged or feel uncomfortable with the co-teaching process. In this situation, one should remember the following:

- Communicate with each other and administration.

- Co-teachers are just as uncomfortable as the general teacher assigned to the room. Some may feel you are intruding in on their space.
- The co-teacher is there to help you help students.
- No one is being judgmental.
- Share your beliefs and expectations of the students, classroom environment, and each other and come to an agreement that works best for students.
- Treat each other with respect. You are both teachers (Kelly, n.d.).

Having special education students and general education students in the same general classroom setting may be a concern for some, but it can work. By creating various ways to differentiate instruction for all students, educators are providing students with the necessary tools to be successful in either the general classroom setting or alternative special education services. The goal is to focus on the student's current performance level as acknowledged in the students IEP and increase academic performance while instilling traits of a lifetime learner. Regardless of the student's academic differences, students can and are expected to master the concepts being taught and/or tested and teachers are expected to provide high-quality instruction with appropriate individualized instruction when necessary (Sapon-Shevin, 2007). Separatism deprives all students from learning from each other, lessens their social interactions, and can possible alter the quality of their education. According to Howard (2003), the teacher has the power to take students to what is called the zone of development. The zone of development requires teachers to give students the needed feedback in order for students to reach their desired educational outcome.

Summary

In conclusion, students receiving their education in urban schools are taught by non-tenured teachers are higher rates than students in rural or suburban districts. If a school district is going to increase the academic achievement of students, they must support non-tenured teachers and allow time for collaboration between staff. Although there are statutes for special education, and those students will continually struggle academically, they will also benefit from non-tenured and tenured teachers who have received high-quality professional development and mentoring.

Chapter Three – Methodology

Introduction

The study school data was derived from a large urban school district in the Southwestern region of Illinois near East St. Louis, Illinois. The city where the study school is located has a population that is characterized with high poverty rates and low socioeconomic status. There are seven elementary schools that house kindergarten through 5th grade, one middle school that services grades 6 through 8, and one high school with grades 9 through 12. The district receives its funding from local property taxes and businesses, state aid and other state funding, and federal funds.

Demographics

In 2005–2006 the school district of the study school employed 273 teachers, 63 of which were special education teachers, and 6 were special education resource teachers. In the 2006–2007 school year, 271 teachers there were employed, 56 of which were special educators, and 6 were special education resource teachers. During the 2007–2008 school year, there were 284 teachers, 57 of which were special education teachers, and 6 were special education resource teachers. From 2005 to 2008, the majority of the teacher population was Caucasian—the African-American teacher population was slightly below 20%, and less than 1% were of other ethnicities. Around 15% of the teacher population was male, and 84.5% of the teachers were female. The average years in teaching experience was 10.3 years. Sixty-one to 66% of the teachers have earned a bachelor's degree, and 32.4% to 37% have earned a master's degree and above. From 2005 to 2008, 0.4% to 2.2% of the teaching staff had emergency or provisional credentials.

For the academic school years 2006–2008, the study school's total student enrollment ranged from 900 to 1,058 students. The student population ethnicity rates resulted in a higher percentage of African-American individuals. Only 9.2% to 5.7% of the student population was Caucasian. Less than 1% of the population consisted of Hispanic and Asian/Pacific Islander, and Native American representation was nonexistent. Student low-income rates were on the high end of the spectrum, ranging in the 90th percentile. Truancy rates ranged between 11% and 16.1%, and attendance rates reached 90%. The mobility rate for the school averaged 21%.

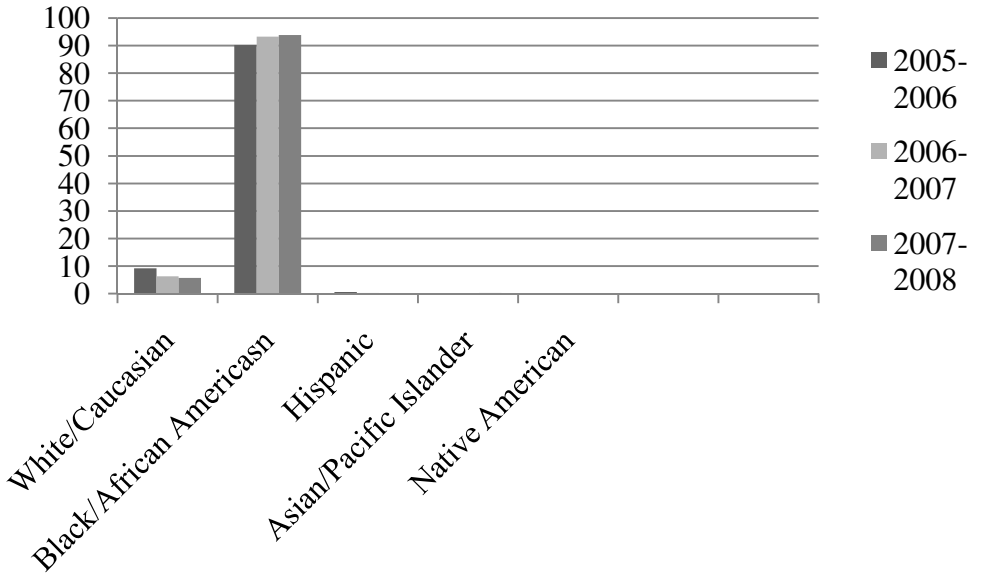

Figure 2. The study school's ethnicity data (percentages).

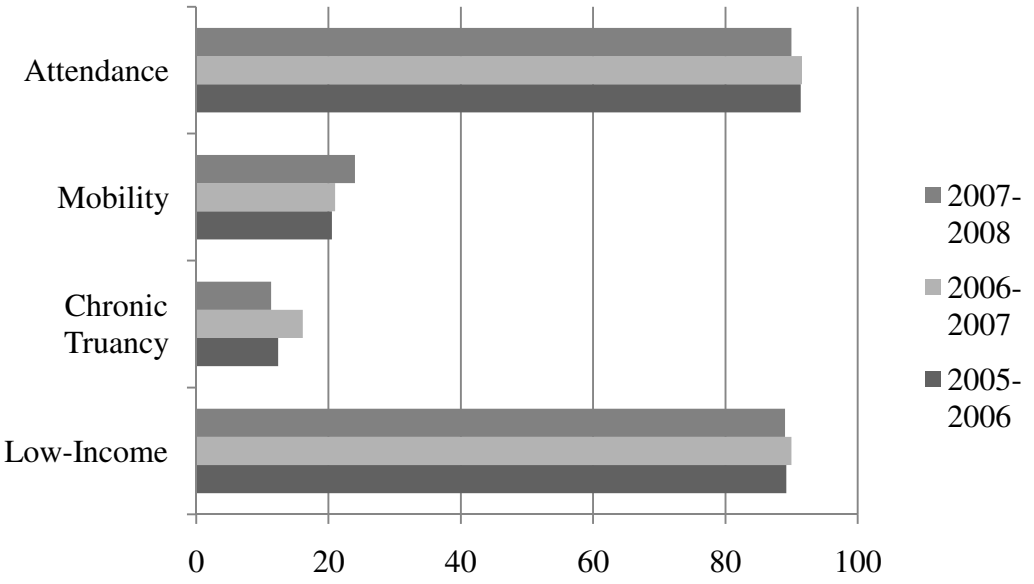

Figure 3. The study school's demographics background information (percentages).

Math, science, reading, English, and social science are the core subjects taught daily. Physical education is offered 3 days a week, and a computer skills course is offered 2 days a week. The school day consists of six 50-minute class periods. District reports state that the student-to-staff ratio ranged from 19.8 to 21.8 for pupil-teacher and around 203.9 to 220.9 for pupil–administrator. In the 2006–2007 school year there were 299 students receiving resource services, 71 students in instructional classrooms, and 93 students receiving speech services only, for a total of 1,103 special education students. During the 2007–2008 school year, there were 416 resource students, 550 students in instructional classrooms, and 102 students receiving speech services only, for a total of 1,068 students receiving special education services. The average class size from 2005 to 2007 ranged from 19.8 to 28.8 students. Special education classes were not allowed more

than 15 students in a class, with an aide for each of the 61 special education classes within the district, as mandated by IDEA regulations.

ISAT is a state-mandated achievement test administered to students yearly. The ISAT is based on a set of academic standards/goals, called Illinois Learning Standards, designed to assess student learning. Each year schools must obtain a certain score to make AYP. Making AYP indicates that students have successfully mastered the standards. The safe harbor target needed to make AYP was 55% for the 2005–2007 school year and 62.5% for the 2007–2008 school year. The safe harbor target is the score needed for a school to be considered as making AYP.

The Illinois State Board of Education (n.d.) Web site provides the following information regarding safe harbor calculations and assessments:

> Safe Harbor allows schools an alternate method to meet subgroup minimum targets on achievement.
>
> The following is how Safe Harbor is calculated:
>
> - A minimum size of 45 students in the same subgroup for two years in a row is necessary for two consecutive years to apply safe harbor.
> - If a subgroup does not meet the performance target in either subject,
> - AND the same subgroup decreased by 10% the percentage of scores that did not meet state standards from the previous year,
> - AND the subgroup meet [sic] the other indicators . . . for the subgroup,
> - THEN Safe Harbor can be applied.

At least 90% attendance rate for non-high schools and at least 72% graduation rate for high schools is also needed to make AYP in 2007. (Illinois State Board of Education, "How Illinois Calculates AYP," "Assessments" and "Safe Harbor" sections)

Math, reading, and science are subgroups that are assessed on the ISAT, and then averaged to be configured in the overall score. The test results indicate student achievement based on the following categories: *Academic warning* (significantly below safe harbor target), *below standards* (below safe harbor target), *meets standards* (safe harbor target), and *exceeds standards* (above safe harbor target). From examining the following chart, one can see the results of the ISAT for the study school from 2005 to 2008.

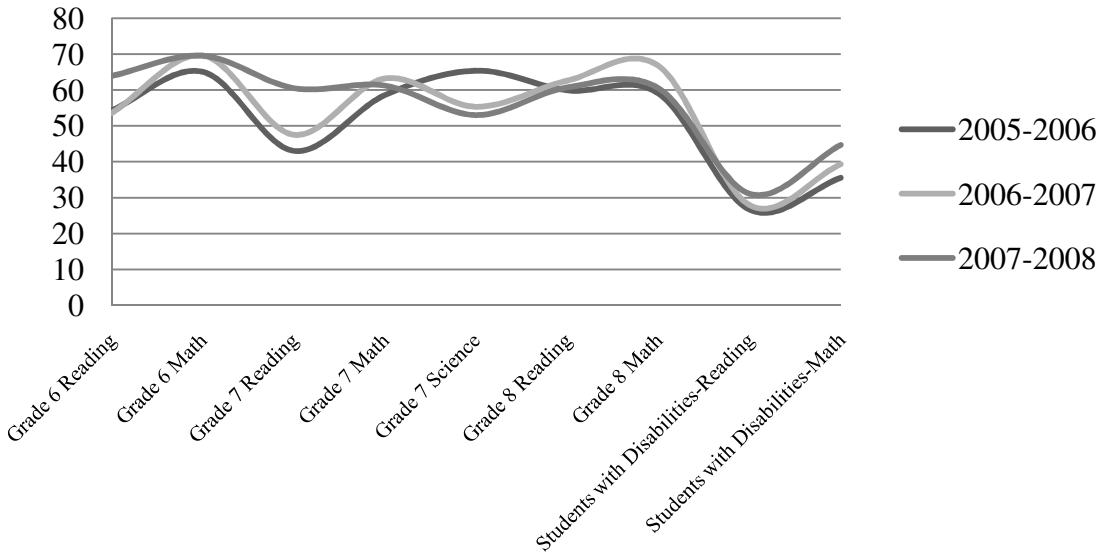

Figure 4. Illinois Standard Achievement Test (ISAT) scores for the study school (percentages) (2005–2006).

Overall, the State of Illinois concluded that the study school's scores did not make AYP in any of the academic school years. This was largely due to the scores of the

students with disabilities configured in the scoring. Students with disabilities scores did not reach the safe harbor target. Over half of the students indentified with disabilities in the 6th, 7th, and 8th grades scored below the standards.

> For schools not making AYP solely because the IEP subgroup does not meet the 70% target, a specific percentage (based on a prescribed formula to be determined later) will be added to the percent Meeting/Exceeding in accordance with the federal 2% flexibility provision. In 2006, 14% was used. (Illinois State Board of Education, NCLB/AYP, How Illinois Calculates AYP, "Students with Disabilities Flexibility" para.)

However, in the areas of reading, math, and science for grades 6th, 7th, and 8th grades, AYP was met in all subgroups except for 6th and 7th grade math in the 2006–2007 and 2007–2008 school years. General education students met AYP for all 3 academic school years.

Subjects

Although human subjects were not used in this study, archival data from the ITBS tests of 6th-, 7th-, and 8th-grade students' reading and math stanine scores were used. The archival data of teacher tenure status was also collected. Thirty-three tenured teachers and 33 non-tenured teachers who taught both reading and math were identified in the tenure status data obtained for the 2005–2006 school year; Twenty non-tenured teachers and 39 tenured teachers who taught both reading and math were indicated in the archival data for the 2006–2007 school year, and 18 non-tenured teachers and 33 tenured teachers who taught both reading and math archival data represented the 2007–2008 academic school year.

Procedure

Written permission was granted from the superintendent of the district in which the study school resides, to complete the study using district information. Three academic school years (2005–2006; 2006–2007; 2007–2008) of the ITBS general education students' reading and math stanine scores were gathered from the curriculum department and disaggregated. The district's personnel secretary provided 3 academic school years (2005–2006, 2006–2007, and 2007–2008) of information on non-tenured and tenured teachers' status.

Each teacher was assigned a letter, and each student's ITBS reading and math pre- and post-stanine score was assigned a number, to ensure absolute anonymity. The stanine scores from the ITBS is used to determine student academic achievement. Each student's stanine score was entered in an Excel spreadsheet, according to the teacher that gave instruction to that particular student for reading and math. Each teacher's set of pre- and post-stanine scores for reading and math were averaged (mean). Then the pre-reading stanine mean was subtracted from the post-reading stanine mean, and the same procedure was repeated for the pre-math and post-math stanine means. Subtracting the pre-stanine mean from the post-stanine mean resulted in the difference between the pre and post means. This calculation indicated whether the scores increased, decreased, or had no change for the pre- and post-reading and math stanines and was a determiner of the successes of each non-tenured and tenured teacher.

To visually analyze the relationship between the teachers' years of service (independent variable) and the difference in reading and math ITBS scores (dependent variable), the independent and dependent variables were illustrated on a scatter plot. If

the data values were depicted close in proximity on the scatter plot, then there was a strong relationship between the independent and dependent variables. According to the Argyll Centre's Web site (Reed, 2009), a line of best fit (trend line) was drawn in the scatter plots to show a trend between two data sets. The Argyll Centre (Reed, 2009) also explained a line of best fit on a scatter plot as

- The line of best fit that rises quickly from left to right is called a positive correlation.
- The line of best that falls down quickly from left to the right is called a negative correlation.
- Strong positive and negative correlations have data points very close to the line of best fit.
- Weak positive and negative correlations have data points that are not clustered near or on the line of best fit.
- Data points that are not close to the line of best fit are called outliers, (¶ 2)

The correlation coefficient was also determined to analyze the strength of the relationship between the independent and dependent variables. For there to be a strong linear relationship between the variables, the correlation coefficient value must be close to -1 or +1. If the correlation coefficient result was negative, then there was not a positive relationship between the independent and dependent variables, and no further testing was necessary. If the correlation coefficient yielded a strong relationship between the variables, a correlation coefficient test of significance was run. The correlation coefficient test of significance also determines if there is evidence that there is a

difference between the independent and dependent variables. The following must be completed to conduct this test

1. Determine the degrees of freedom (*df*), using an alpha of 0.05, by subtracting 2 form the sample size. The formula used is *N-2*.
2. The result of *N-2* is then corresponded with its critical value, using the critical values for the Pearson product–moment correlation (PPMC) table.
3. The critical value is then used as a range of a positive and negative, for example, +.878 to -.878. If the correlation coefficient falls within the positive and negative critical value range, there is not a significant difference between the variables; and the null hypothesis $H_0: \rho \leq 0$ can be accepted.
4. If the correlation coefficient falls outside of the range, then there is a significant difference between the two variables; and the researchers can reject the null hypothesis $H_0: \rho \leq 0$. This in favor of the alternate hypothesis.

Chapter Four – Results

Introduction

The purpose of this study was to examine if students receiving instruction from a non-tenured teacher demonstrates the same gains in the areas of reading and math as students receiving instruction from a tenured teacher in the areas of reading and math. The researchers explored if the years of service a teacher acquired had an impact on the academic success of students. The researchers used students' pre- and post-reading and math ITBS stanine scores as a measure of academic achievement, to determine if there was a relationship between tenure status and academic achievement. The independent variable is the tenure status of teachers. The dependent variable is ITBS student achievement scores.

2005–2006 Tenured Teacher Reading Results

Alternate hypothesis: There will be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine reading scores.

$$H_1: \rho > 0$$

Null hypothesis: There will not be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine reading scores.

$$H_0: \rho \leq 0$$

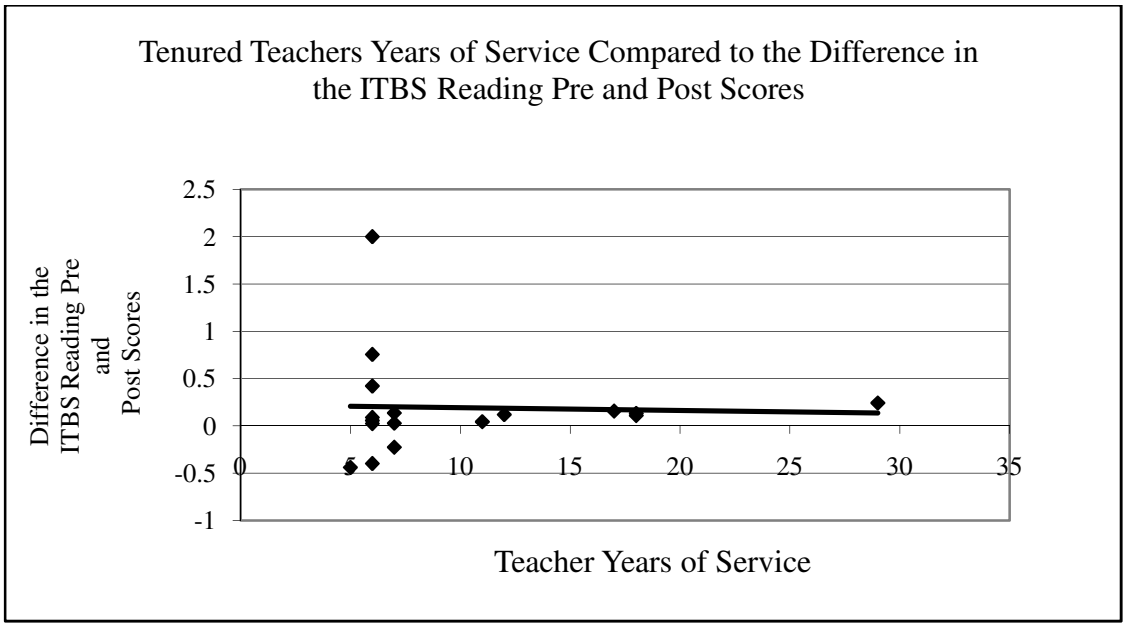

Figure 5. Tenured teachers' years of service compared to the difference in the ITBS reading pre and post scores scatter plot for instructional special education, general education, and special education resource.

In Figure 5 the scatter plot compares years of service to the difference between pre- and post-ITBS reading stanine scores. The slope of the line of best fit indicates a positive or negative relationship. The line of best fit drawn in the scatter plot supports that there was a mild negative relationship between independent and dependent variables. This supports that the null hypothesis was not rejected.

Table 4

Coefficient Correlation for Tenured Teachers' Years of Service Compared to the Difference in the ITBS Reading Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Experience	*Tenured Reading ITBS Scores*
Years of Experience	1	
Tenured Reading ITBS Scores	-0.035425807	1

The correlation coefficient in Table 4 indicates a negative and small value of -0.0354. For a strong linear relationship between the variables, the value must be -1 or +1 or close to -1 or +1. Since the correlation coefficient was a negative, there was no positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores of tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

2005–2006 Tenured Teacher Math Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine math scores.

$H_1: \rho > 0$

Null Hypothesis There will not be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine math scores.

$H_0: \rho \leq 0$

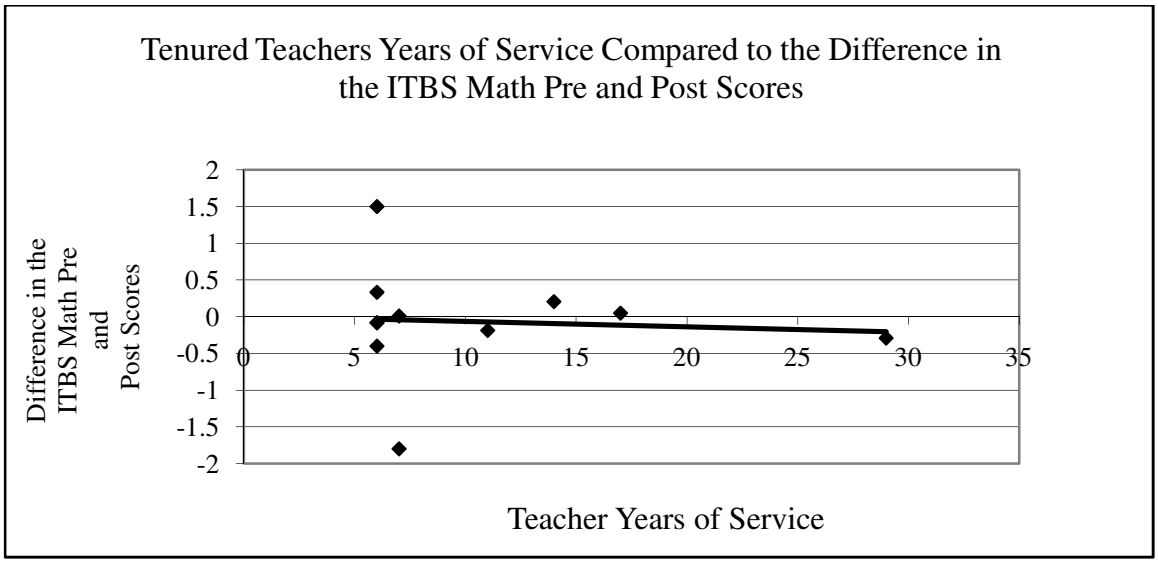

Figure 6. Tenured teachers' years of service compared to the difference in the ITBS math pre and post scores scatter plot for instructional special education, general education, and special education resource.

Figure 6 is a visual comparison of teacher years of service to the difference between pre- and post-ITBS math stanine scores. The line of best fit drawn in the scatter plot supports that there was a mild negative relationship between independent and dependent variables. This supports that the null hypothesis was not rejected.

Table 5

Coefficient Correlation for Tenured Teachers' Years of Service Compared to the Difference in the ITBS Math Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Experience	*Tenured Math ITBS Scores*
Years of Experience	1	
Tenured Math ITBS Scores	-0.070730077	1

The correlation coefficient in Table 5 indicates a negative and small value of -0.0707. Since the correlation coefficient was a negative, there was no strong positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores of tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

2005–2006 Non-Tenured Teacher Reading Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine reading scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine reading scores

$H_0: \rho \leq 0$

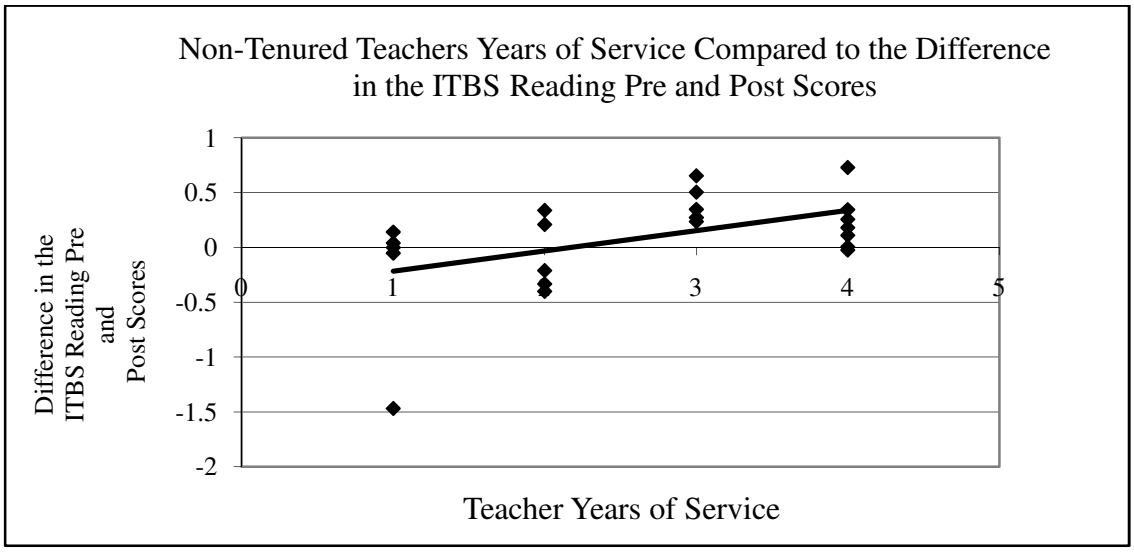

Figure 7. Non-tenured teachers' years of service compared to the difference in the ITBS reading pre and post scores scatter plot for instructional special education, general education, and special education resource.

In Figure 7 the scatter plot compares years of service to the difference between pre- and post-ITBS reading stanine scores of non-tenured teachers. The line of best fit drawn in the scatter plot supports that there was a positive relationship between independent and dependent variables. This supports the rejection of the null hypothesis.

Table 6

Coefficient Correlation for Non-Tenured Teachers' Years of Service Compared to the Difference in the ITBS Reading Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Service	*Non-Tenured Reading ITBS Scores*
Years of Service	1	
Non-Tenured Reading ITBS Scores	0.485811984	1

The correlation coefficient in Table 6 indicates a value of 0.4858. There was a positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores of non-tenured teachers. Therefore, the null hypothesis was rejected.

A correlation coefficient test of significance was run using critical values for PPMC at an alpha of 0.05 and a *df* of 18. The *t*-test value fell between the critical values of +0.444 and -0.444, and this indicated that rejection of the null was not likely due to chance.

2005–2006 Non-Tenured Teacher Math Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine math scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine math scores.

$H_0: \rho \leq 0$

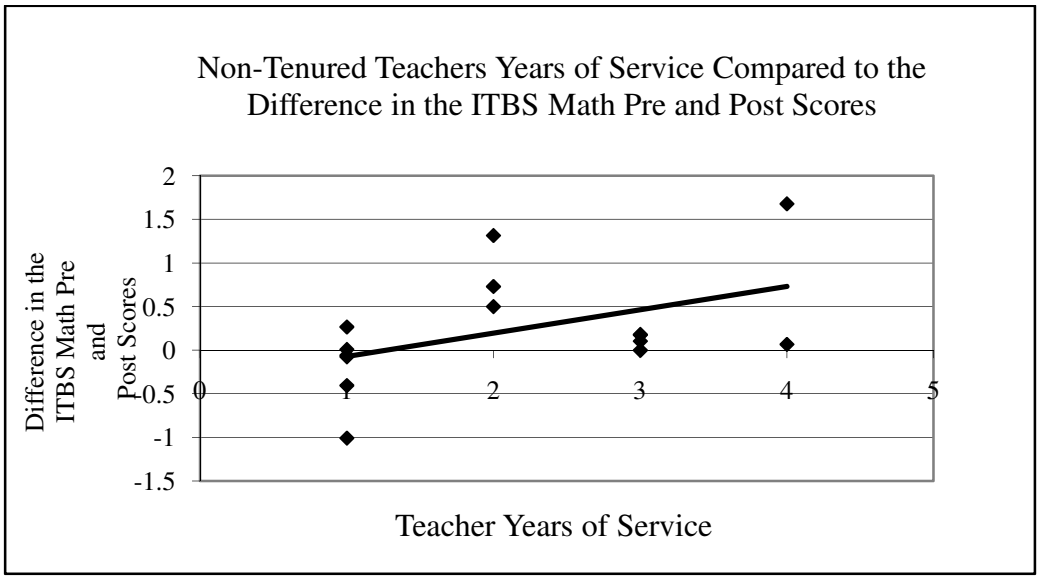

Figure 8. Non-tenured teachers' years of service compared to the difference in the ITBS math pre and post scores scatter plot for instructional special education, general education, and special education resource.

In Figure 8, the scatter plot compares years of service to the difference between pre- and post-ITBS math stanine scores. The line of best fit drawn in the scatter plot supports that there was a positive relationship between independent and dependent variables. This supports that the null hypothesis was rejected.

Table 7

Coefficient Correlation for Non-Tenured Teachers' Years of Service Compared to the Difference in the ITBS Math Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Service	*Non-Tenured Math ITBS Scores*
Years of Service	1	
Non-Tenured Math ITBS Scores	0.466316418	1

The correlation coefficient in Table 7 indicates a value of 0.4663. There is a positive relationship between years of service and difference between pre- and post-ITBS math stanine scores of non-tenured teachers. The null hypothesis was rejected.

A correlation coefficient test of significance was run using critical values for PPMC at an alpha of 0.05 and a *df* of 13. The *t*-test value fell outside the critical values of +0.514 and -0.514, and this indicated that the positive relationship is likely due to chance.

2006–2007 Tenured Teacher Reading Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine reading scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine reading scores.

$H_0: \rho \leq 0$

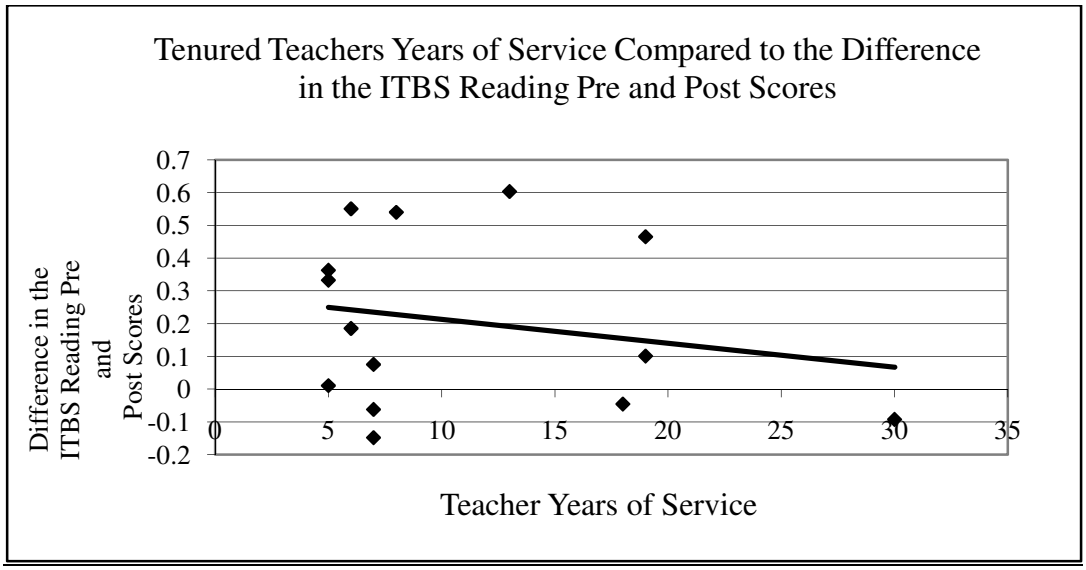

Figure 9. Tenured teachers' years of service compared to the difference in the ITBS reading pre and post scores scatter plot for instructional special education, general education, and special education resource.

The scatter plot in Figure 9 compares years of service to the difference between pre- and post- ITBS reading stanine scores. The line of best fit drawn in the scatter plot supports that there was a negative relationship between independent and dependent variables. This supports that the null hypothesis was not rejected.

Table 8

Coefficient Correlation for Tenured Teachers' Years of Service Compared to the Difference in the ITBS Reading Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Experience	*Tenured Reading ITBS Scores*
Years of Experience	1	
Tenured Reading ITBS Scores	0.336445942	1

The correlation coefficient in Table 8 indicates a negative value of -0.3364. For a strong linear relationship between the variables, the value must be -1 or +1 or close to -1 or +1. Since the correlation coefficient was a negative, there was no positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores of tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

2006–2007 Tenured Teacher Math Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine math scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine math scores.

$H_0: \rho \leq 0$

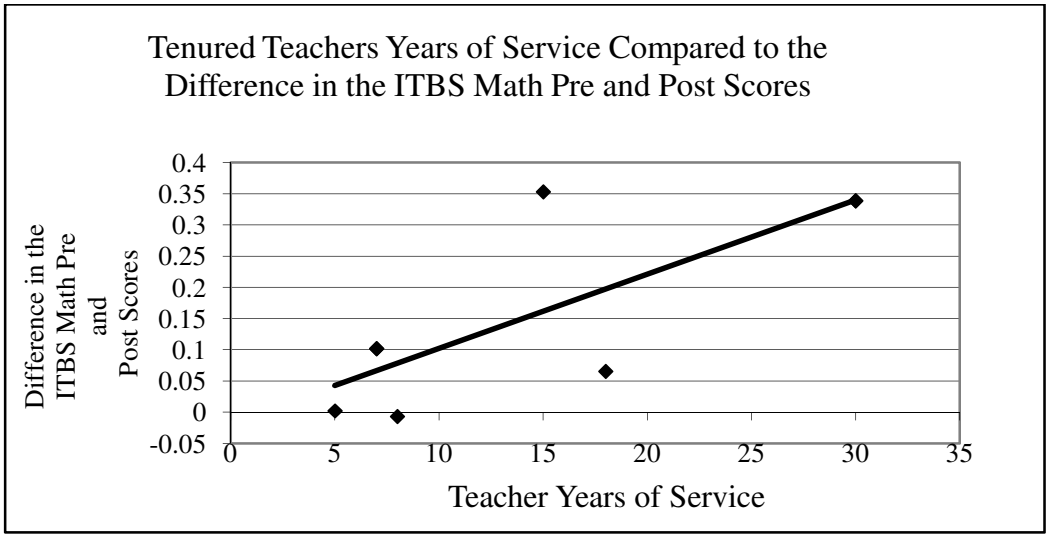

Figure 10. Tenured teachers' years of service compared to the difference in the ITBS math pre and post scores scatter plot for instructional special education, general education, and special education resource.

Figure 10 compared years of service to the difference between pre- and post-ITBS math stanine scores. The line of best fit drawn in the scatter plot supports that there was a strong positive relationship between independent and dependent variables. This supports the rejection of the null hypothesis.

Table 9

Coefficient Correlation for Tenured Teachers' Years of Service Compared to the Difference in the ITBS Math Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Experience	*Tenured Math ITBS Scores*
Years of Experience	1	
Tenured Math ITBS Scores	0.783386354	1

The correlation coefficient in Table 9 indicates a value of 0.7833. There was a strong positive relationship between years of service and difference between pre- and post-ITBS math stanine scores of tenured teachers. The null hypothesis was rejected.

A correlation coefficient test of significance was run using critical values for PPMC at an alpha of 0.05 and a *df* of 6. The *t*-test value fell between the critical values of +0.707 and -0.707, and this indicated that that rejection of the null hypothesis was not likely due to chance.

2006–2007 Non-Tenured Teacher Reading Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine reading scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine reading scores.

$H_0: \rho \leq 0$

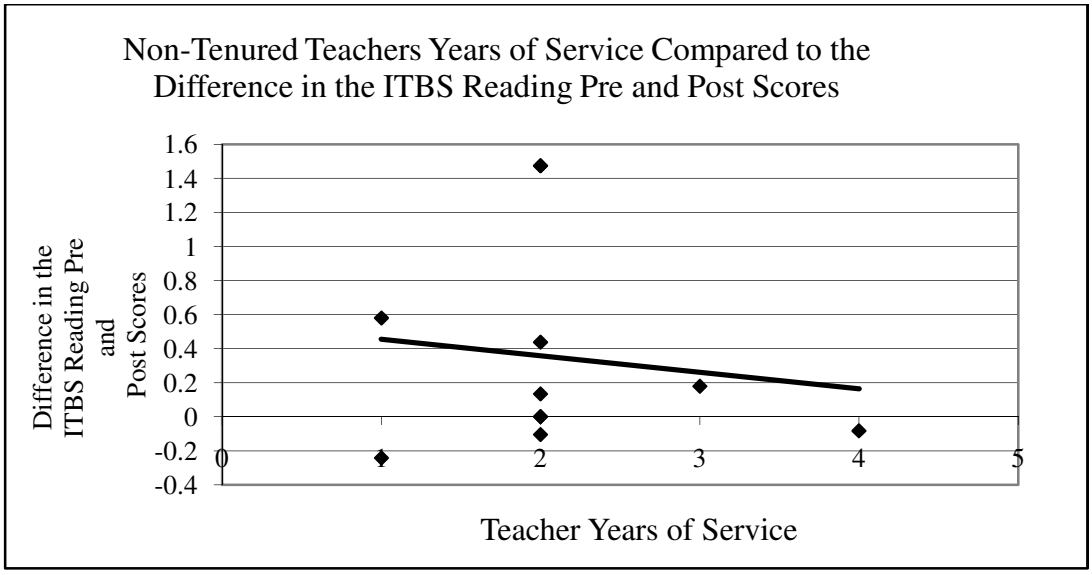

Figure 11. Non-tenured teachers' years of service compared to the difference in the ITBS reading pre and post scores scatter plot for instructional special education, general education, and special education resource.

In Figure 11 the scatter plot compares years of service to the difference between pre- and post-ITBS reading stanine scores of non-tenured teachers. The line of best fit drawn in the scatter plot supports that there was a negative relationship between independent and dependent variables. This supports that the null hypothesis was not rejected.

Table 10

Coefficient Correlation for Non-Tenured Teachers' Years of Service Compared to the Difference in the ITBS Reading Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Service	*Non-Tenured Reading ITBS Scores*
Years of Service	1	
Non-Tenured Reading ITBS Scores	0.134247759	1

The correlation coefficient in Table 10 indicates a negative correlation of -0.1342. There was no strong positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores of non-tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

2006–2007 Non-Tenured Teacher Math Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine math scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine math scores.

$H_0: \rho \leq 0$

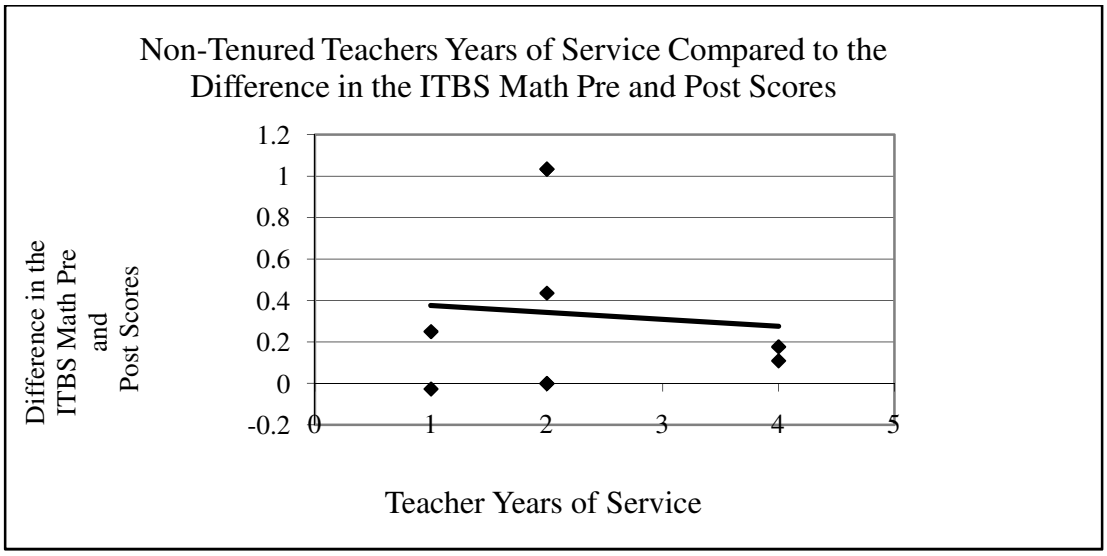

Figure 12. . Non-tenured teachers' years of service compared to the difference in the ITBS math pre and post scores scatter plot for instructional special education, general education, and special education resource.

Figure 12 compares teachers' years of service to the difference between pre- and post-ITBS math stanine scores. The line of best fit drawn in the scatter plot supports that there was a mild negative relationship between independent and dependent variables. This supports that the null hypothesis was not rejected

Table 11

Coefficient Correlation for Non Tenured Teachers' Years of Service Compared to the Difference in the ITBS Math Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Service	*Non-Tenured Math ITBS Scores*
Years of Service	1	
Non-Tenured Math ITBS Scores	0.087326926	1

The correlation coefficient in Table 11 indicates a negative value of -0.0873. Since the correlation coefficient was a negative, there was no positive relationship between years of service and difference between pre- and post-ITBS math stanine scores of non-tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

2007–2008 Tenured Teacher Reading Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine reading scores.

$H_1: \rho > 0$

Null Hypothesis: There will not be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine reading scores.

$H_0: \rho \leq 0$

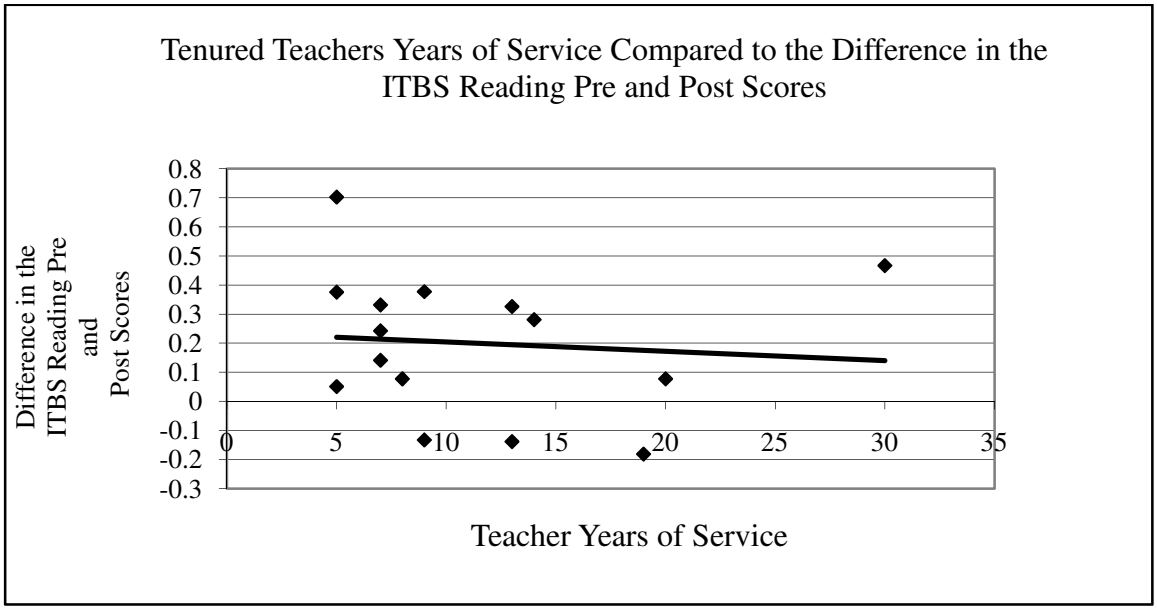

Figure 13. Tenured teachers' years of service compared to the difference in the ITBS reading pre and post scores scatter plot for instructional special education, general education, and special education resource.

In Figure 13 the scatter plot compared years of service to the difference between pre- and post-ITBS reading stanine scores. The line of best fit drawn in the scatter plot supports that there was a mild negative relationship between independent and dependent variable. This supports that the null hypothesis was not rejected.

Table 12

Coefficient Correlation for Tenured Teachers' Years of Service Compared to the Difference in the ITBS Reading Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Experience	*Tenured Reading ITBS Scores*
Years of Experience	1	
Tenured Reading ITBS Scores	0.090974881	1

The correlation coefficient in Table 12 indicates a negative value of -0.0909. Since the correlation coefficient was a negative, there was no positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores of tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

2007–2008 Tenured Teacher Math Results

Alternate Hypothesis: There will be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine math scores.

$$H_1: \rho > 0$$

Null Hypothesis: The will not be a significant positive correlation between the years of teacher service of tenured teachers and ITBS stanine math scores.

H_0: $\rho \leq 0$

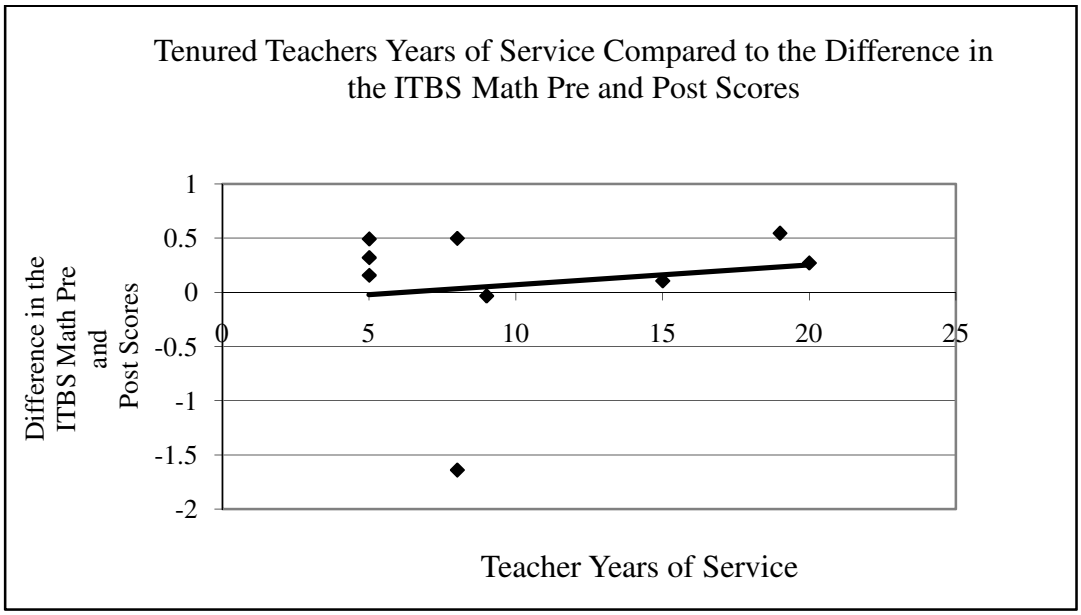

Figure 14. Tenured teachers' years of service compared to the difference in the ITBS math pre and post scores scatter plot for instructional special education, general education, and special education resource.

The scatter plot in Figure 14 compared years of service to the difference between pre- and post-ITBS math stanine scores. The line of best fit drawn in the scatter plot supports that there was a mild positive relationship between independent and dependent variable. This supports that the null hypothesis was not rejected.

Table 13

Coefficient Correlation for Tenured Teachers' Years of Service Compared to the Difference in the ITBS Math Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Experience	*Tenured Math ITBS Scores*
Years of Experience	1	
Tenured Math ITBS Scores	0.163442901	1

The correlation coefficient in Table 13 indicates a value of 0.1634. There was no strong positive relationship between years of service and difference between pre- and post-ITBS math stanine scores, of tenured teachers. The null hypothesis was not rejected.

A correlation coefficient test of significance was run using critical values for PPMC at an alpha of 0.05 and a *df* of 7. The *t*-test value fell outside of the critical values of +0.666 and -0.666, and this indicated that the positive relationship is likely due to chance.

2007–2008 Non-Tenured Teacher Reading Results

Alternate hypothesis: There will be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine reading scores.

H_1: $\rho > 0$

Null hypothesis: There will not be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine reading scores.

H_0: $\rho \leq 0$

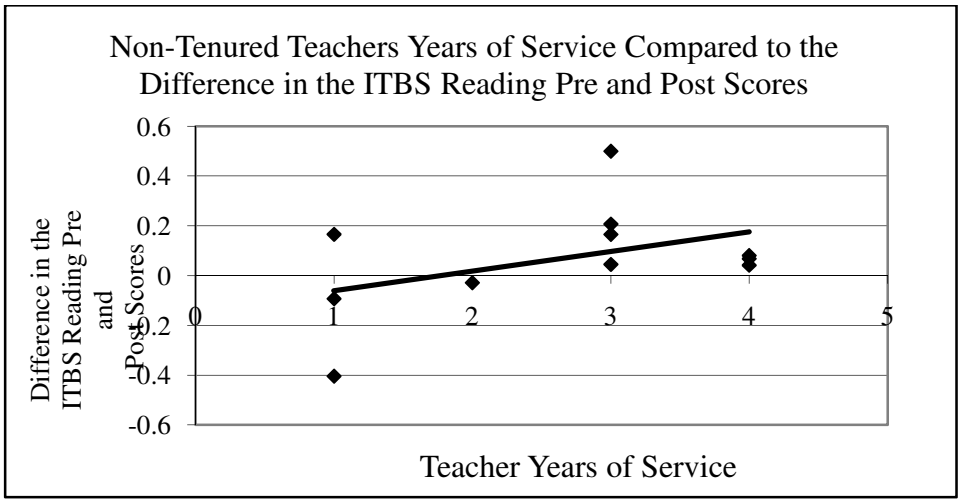

Figure 15. Non-tenured teachers' years of service compared to the difference in the ITBS reading pre and post scores scatter plot for instructional special education, general education, and special education resource.

In Figure 15 the scatter plot visually compared years of service to the difference between pre- and post-ITBS reading stanine scores of non-tenured teachers. The line of best fit drawn in the scatter plot supports that there was a positive relationship between independent and dependent variable. This supports the rejection of the null hypothesis.

Table 14

Coefficient Correlation for Non-Tenured Teachers' Years of Service Compared to the Difference in the ITBS Reading Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Service	*Non-Tenured Reading ITBS Scores*
Years of Service	1	
Non-Tenured Reading ITBS Scores	0.43388664	1

The correlation coefficient in Table 13 indicates a value of 0.4338. It is apparent that there was a strong positive relationship between years of service and difference between pre- and post-ITBS reading stanine scores. The null hypothesis was rejected.

A correlation coefficient test of significance was run using critical values for PPMC at an alpha of 0.05, and a *df* of 9. The *t*-test value fell outside the critical values of +0.602 and -0.602, and this indicated that the positive relationship is likely due to chance.

2007–2008 Non-Tenured Teacher Math Results

Alternate hypothesis: There will be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine math scores.

$H_1: \rho > 0$

Null hypothesis: There will not be a significant positive correlation between the years of teacher service of non-tenured teachers and ITBS stanine math scores

$H_0: \rho \leq 0$

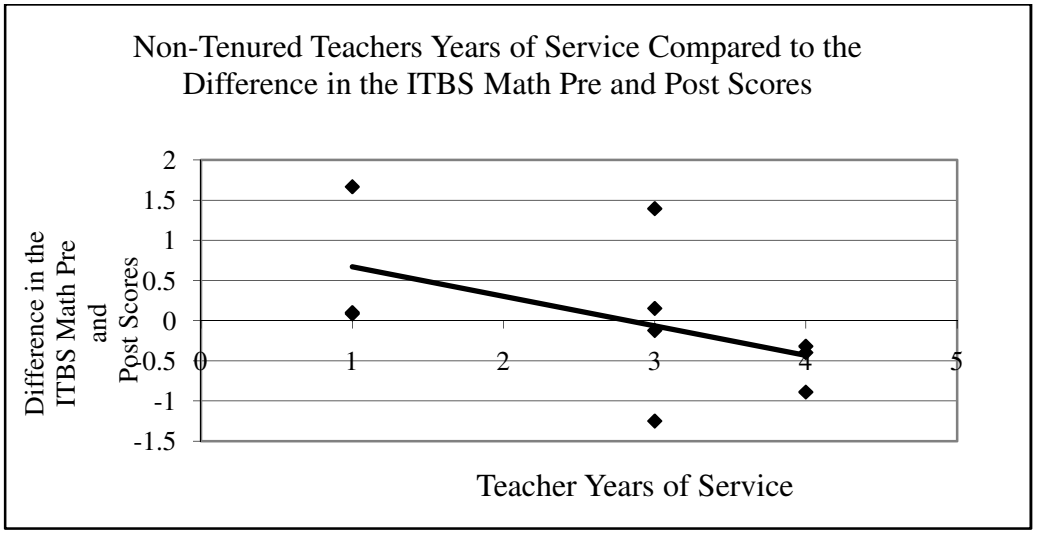

*Figure 16.N*on-tenured teachers' years of service compared to the difference in the ITBS math pre and post scores scatter plot for instructional special education, general education, and special education resource.

Figure 16 illustrates a comparison of years of service to the difference between pre- and post-ITBS math stanine scores. The line of best fit drawn in the scatter plot supports that there was a negative relationship between independent and dependent variable. This supports that the null hypothesis was not rejected.

Table 15

Coefficient Correlation for Non-Tenured Teachers Years of Service Compared to the Difference in the ITBS Math Pre and Post Scores for the Scatter Plot for Instructional Special Education, General Education, and Special Education Resource

	Years of Service	*Non-Tenured Math ITBS Scores*
Years of Service	1	
Non-Tenured Math ITBS Scores	0.508670039	1

The correlation coefficient in Table 15 indicates a negative correlation of -0.5086. Since the correlation coefficient was a negative, there was no strong positive relationship between years of service and difference between pre- and post-ITBS math stanine scores of non-tenured teachers. The null hypothesis was not rejected, so no further testing was needed.

Summary

From examining the scatter plots and the correlation coefficients, there was a positive relationship between the independent and dependent variables for the following data sets:

- 2005–2006 non-tenured teachers' reading and math results
- 2006–2007 tenured teachers' math results
- 2007–2008 tenured teachers' math results
- 2007–2008 non-tenured teachers' reading results

Each time the null hypothesis was rejected, it resulted in a positive relationship between the independent and dependent variables.

The correlation coefficient significance tests conducted indicated that the rejection was not likely due to chance for the following categories

- 2005–2006 non-tenured teachers' reading results
- 2006–2007 tenured teachers' math results

For these data sets, there was a positive relationship between the two variables.

A negative correlation coefficient resulted for the following, which indicated there was not a positive relationship between the independent and dependent variables, and the null hypothesis was not rejected:

- 2005–2006 non-tenured teachers' reading results
- 2006–2007 tenured teachers' math results
- 2006–2007 tenured teachers' reading results
- 2006–2007 non-tenured teachers' reading and math results
- 2007–2008 tenured teachers' reading results
- 2007–2008 non-tenured teachers' math results

The research conducted by Sheryl Wilson (instructional special education and academic achievement) and Trenese Dancy (general education and academic achievement) determined similar results were found in this study.

Chapter Five – Discussion

Introduction

This study's unique contribution takes a look at the impact tenured and non-tenured teachers have on academic achievement. One would think that the more experience a teacher has, the better the quality of education delivered to students. In this study that was proven to not always be true. This study could help school districts take a more serious approach in evaluating teachers, providing and requiring continuing education courses or professional development for educators, and taking a more rigorous and serious approach in hiring practices.

The researchers of this of this study wanted to determine if a teacher with more experience yielded higher academic achievement by evaluating pre- and post-ITBS reading and math scores. Based on the results of the study, one can conclude that the number of years of experience a teacher has obtained does not always determine a student's academic success.

Teachers' years of service (independent variable) was compared to the pre- and post- ITBS reading and math scores (dependent variable), using scatter plots, correlation coefficients, and correlation coefficient test of significance.

According to the correlation coefficient results, there was a positive relationship between the independent and dependent variables, and the null hypothesis was rejected for the following:

- 2005–2006 non-tenured teachers' reading and math results
- 2006–2007 tenured teachers' math results
- 2007–2008 tenured teachers' math results

- 2007–2008 non-tenured teachers' reading results

The correlation coefficient test of significance indicated that the rejection of the null hypothesis was not likely due to chance in the following data sets:

- 2005–2006 non-tenured teachers' reading results
- 2006–2007 tenured teachers' math results

According to the correlation coefficient test of significance for the 2005–2006 non-tenured teachers' math results and the 2007–2008 tenured teachers' math results, a positive relationship exists between the independent and dependent variables.

There was a negative correlation coefficient for the following data. A negative correlation coefficient indicates that there was not a positive relationship between two variables:

- 2005–2006 non-tenured teachers' reading results
- 2005–2006 tenured teachers' math results
- 2006–2007 tenured teachers' reading results
- 2006–2007 non-tenured teachers' reading and math results
- 2007–2008 tenured teachers' reading results
- 2007–2008 non-tenured teachers' math results

General Education Teachers and Academic Achievement

Trenese Dancy conducted this study on general education teachers and academic achievement, and according to the correlation coefficient results for the study on general education and academic achievement, there was a positive relationship between the independent and dependent variables, and the null hypothesis was rejected for the following:

- 2005–2006 tenured teachers' reading math results
- 2005–2006 non-tenured teachers' reading math results
- 2006–2007 tenured teachers' reading and math results
- 2007–2008 non-tenured teachers' reading results

The correlation coefficient test indicated rejection of the null hypothesis. The correlation coefficient test of significance was conducted on the following data sets to determine if rejection of the null was likely due to chance:

- 2005–2006 tenured and non-tenured teachers' reading and math results
- 2006–2007 tenured teachers' reading and math results
- 2007–2008 tenured teachers' math results
- 2007–2008 non-tenured teachers' reading results

For each observation the results indicated that the rejection of the null were not likely due to chance for the following:

- 2005–2006 tenured and non-tenured teachers' reading results
- 2006–2007 tenured teachers' math results

There was a negative correlation coefficient for the following data. A negative correlation coefficient indicates that there was not a positive relationship between the two observed variables for: non-tenured teachers' reading and math scores for the 2006–2007 school year, tenured teachers' reading scores for the 2007–2008 school year, and non-tenured teachers' math scores for 2007–2008.

For the 2007–2008 school year, there was not enough data to find the correlation coefficient for non-tenured teachers' math ITBS scores.

Instructional Special Education Teachers and Academic Achievement

Sheryl Wilson conducted the study on instructional special education and academic achievement. Ms. Wilson indicated that, according to the correlation coefficient results, there was a positive relationship between the independent and dependent variables, and the null hypothesis was rejected, for the following:

- 2005–2006 non-tenured teachers' reading and math ITBS scores
- 2007–2008 tenured teachers' reading and math ITBS scores
- 2007–2008 non-tenured teachers' reading ITBS scores

Using the correlation coefficient, a negative relationship was found between the independent and dependent variables, which resulted in the null hypothesis not being rejected for the following categories:

- 2005–2006 tenured teachers' reading and math results
- 2006–2007 tenured teachers' reading and math results
- 2006–2007 non-tenured teachers' reading and math results
- 2007–2008 non-tenured teachers' math results

The correlation coefficient test of significance results indicated that the rejection of the null hypothesis was not likely due to chance for the following categories:

- 2005–2006 non-tenured teachers' reading and math results
- 2007–2008 tenured teachers' reading and math results

There was a negative correlation coefficient for the following data. A negative correlation coefficient, which indicates that there was not a positive relationship between the two observed variables, was found for the following categories: tenured teachers'

reading and math scores for the 2005–2006 school year, tenured and non-tenured teachers' reading and math scores for the 2006–2007 school year, and non-tenured teachers' math scores for the 2007–2008 school year.

Implications

The district of the study school uses the ITBS as a means of promoting students to the next grade level, based on academic skill level in terms of years and months. Making a decision to imply that the students who are successful on the ITBS because of a teacher experience would be invalid.

The results of the data can imply that the district may need to use a more reliable assessment tool to evaluate teacher effectiveness on student academic achievement. Glasgow and Hicks (2003) stated that through research, teacher–student collaboration, effective classroom management, organization, effective lesson plans and instructional delivery, the ability to differentiate instruction, and continual assessment of student achievement are qualities of successful teachers. These skills should be used as criteria for attaining tenure status and could ensure increased academic achievement of the students at the study school. It is the opinion of the researchers that all teachers want to be successful; therefore, the possible reasons teachers may not employ these skills in their pedagogy is due to lack of effective training in teaching methods, failure to implement induction programs for first-year teachers, the absence of mentoring, and poor leadership. Identifying ways to implement and assess the use of these strategies in the classes of general education teachers with varying years of service could help the study school make AYP.

For the teachers whose students did not score at grade level or above, the district may need to provide professional development opportunities on the following: how to promote academic success in the classroom, effective teaching strategies, and additional instruction/knowledge in the subject area taught.

Improved screening techniques to effectively hire teachers who are adequately knowledgeable in the content area being taught would facilitate selecting teachers who have effective teaching methods. Peske and Haycock (2006) stated that urban schools are habitually unable to hire teachers with skills to close the achievement gaps. Schools in urban areas have higher teacher turnover rates and suffer from teacher shortage (Sarpy-Simpson, 2005).

Using teachers who are effective educators and have high student academic achievement as mentors for teachers that are not as successful with academic achievement would possibly improve the quality of education that students receive and improve the knowledge base of less successful teachers. As stated in the research of Bartell (2005), Brewster and Railsback (2001), Menchaca (2003), and Veenman and Denessen (2001), induction can be useful in transitioning individuals from a student-teacher to full-time teacher, while retaining the quality of novice teachers. In relation to this, Sarpy-Simpson (2005) mentioned that allowing an adequate amount of time for teacher collaboration was a necessary factor.

Improving the curriculum to promote academic achievement and purchasing adequate materials to provide instruction would also support teachers in their instruction delivery to students. The curriculum that districts purchase should be

scientifically researched based. These programs should include reading selection relative to the background of students utilizing the curriculum.

The study school was located in an urban area; urban schools tend to have lower test scores, inadequate learning environments, and teachers with ineffective teaching strategies. Klem and Connell (2004) said that urban schools need teachers to provide a more personalized learning environment and make learning relevant to students' lives. Peske and Haycock (2006) stated that urban schools are habitually unable to hire teachers with skills to close the achievement gaps. Schools in urban areas have higher teacher turnover rates and suffer from teacher shortage (Sarpy-Simpson, 2005). Yell and Drasgow (2005) documented that NCLB requires that teachers should meet basic requirements, such as reading, math, grammar, science, and social science, in order to be recognized as highly qualified teachers and reach mastery in the area taught.

The study school's student population was composed mainly of low-income African-American students, and these students tend to score significantly lower on standardized tests and have lower academic achievement outcomes. "Minority and low-income students are disproportionately taught by less-qualified school teachers" (Learning Point Associates, 2007, p. 1). However, research indicates that "disadvantaged students who have highly effective teachers for several consecutive years are able to catch up with their more advantaged peers" (Learning Point Associates, 2007, p. 1).

Additionally, the sample size of special education resources teachers combined in this whole school study may have resulted in a negative relationship between the independent and the dependent variables. When the data was disaggregated, special education resource teachers displayed no positive relationship between the independent

and dependent variables, or there was not enough data to support the sample size. This resulted in no significant positive relationship between the independent and dependent variable and the null hypothesis being accepted for the data collected.

Recommendations

Teachers who do not posses effective teaching skills or do not have enough knowledge base of the subject area taught should be required to enroll in courses that support and will help them provide a quality educational experience for students. Winters (2008) reported that the state of Illinois, on average, fired two teachers each year on account of poor performance.

Addressing teacher job satisfaction and well-being bi-yearly should be a criteria in the evaluation process. “Certified teachers with high self-efficacy are more likely to be effective in the classroom” (Anthony, 2007, p. 2).

To increase performance of teachers, regardless of tenure status, merit pay could be established to reward the effective teachers and motivate teachers to produce positive student learning outcomes.

An improved teacher evaluation method, with more criteria critically addressing teacher performance and student mastery of concepts, should be used to determine if a teacher transcends from a non-tenure status to a tenure status. Demonstration of knowledge in the subject area taught and display of effective teaching strategies are two areas that should be addressed in the evaluation process of tenured and non-tenured teachers. Evaluations should happen more frequently, formally and informally. Gordon, Kane, and Staiger (2006) stated that effective and ineffective teachers can be identified in the first or second year of their career. Currently, tenure is granted in this urban middle

school at the end of a teacher's fourth successful evaluation year of teaching. Teachers are evaluated in four domains for professional competency: planning and preparation, classroom environment, instruction, and professional responsibilities. The primary purpose of this evaluation process is to ensure the effectiveness of instruction being provided to students.

Prior to tenure, teachers are evaluated twice a year. Once tenured, teachers are evaluated once every other year and are provided the opportunity to develop a goal in the domain of their choice. It is both proactive and collaborative between the teacher and the evaluator. This is a recommendation of the researchers that non-tenured teachers be evaluated three times a year and tenured teachers be evaluated annually.

Other methods of assessing student learning could be required, not just using standardized tests as a means of determining student achievement. Expansion of this study could include:

1. documenting the content being taught in the classroom,
2. careful monitoring and documenting of student improvement in the classroom,
3. documenting teacher methods of delivering instruction to students,
4. documenting how teachers use information learned in workshops geared to effective teaching strategies,
5. using grades, grade-point average (GPA), and classroom achievement as a means of determining teacher success, and
6. examining the socioeconomic status of students to indicate if there are barriers that impair or supersede teacher effectiveness.

Because literature states that "urban schools, where many students are perennial underachievers, lack the most essential resource to overcome academic underachievement: a full array of qualified teachers" (Howard, 2003 p. 143), these are additional recommendations:

- A building-wide professional development plan
- Individual professional development plans for each teacher
- Time for teacher collaboration
- Meetings to discuss and analyze student achievement data
- Developing a common assessment
- Implementation of research-based curriculum
- Social justice and equity training for all teachers
- Improving hiring practices
- Should be required to seek professional development based on the needs of the district and/or subject taught.
- Teachers should be shown how to read student data accurately and let the data drive their lessons.
- Allow teachers to use site visits to observe effective teaching and/or teachers that are experiencing student academic success.
- Create professional learning communities to help with teacher planning.
- Assess student learning by utilizing other methods, such as
    - Oral assessments
    - Written reports
    - Student portfolios

- Common formative assessments
- Student-led parent–teacher conferences
- Local assessments
- Quarterly report cards

In addition to the above, districts could

- Hold more evaluations for both tenured and non-tenured teachers.
- Consider adding a student-based performance criteria to the evaluation tool.

Summary

Hirsch (2008) concluded that there is no independent or conclusive research that shows an accurate measure of a teacher's impact on academic progress. If there is any disparity due in part to the tenure status and years of service of general education teachers, the results of this study will have a direct impact on how decisions are made regarding yearly planning, teacher assignments, induction, mentoring and professional development.

The purpose of this study was to examine if students receiving instruction from all non-tenured teacher shows the same gains in the areas of reading and math as those students receiving instruction from all tenured special education teachers in the areas of reading and math. Although there were a significant number of tenured general education teachers at the study school during the 2005–2006, 2006–2007, and 2007–2008 school years, the school did not make AYP on account of the special education subgroups' failure to meet state standards.

During the 2005–2006 school year, the district of the study school employed 273 teachers; 63 of them were special education teachers, and 6 of them were special education resource teachers. During the 2006–2007 school year, 271 teachers were employed; 56 of them were special educators, and 6 of them were special education resource teachers. During the 2007–2008 school year, there were 284 teachers, which included 57 special education teachers and 6 special education resource teachers.

This study proved that teacher tenure status may have an impact on student academic achievement. Student mastery of concepts depends on the content of what is being taught, the manner in which to content is delivered to students, and the assessment used to determine academic success.

Urban school districts have been unsuccessful in employing and retaining master teachers. Therefore, there are increased numbers of non-tenured less effective teachers working in inner city schools. A two-week teacher strike may have also had a negative impact on achievement for the 2007–2008 school year.

Students from low income urban schools are consistently achieving at levels lower than their middle- and upper-class cohorts. This problem can be attributed to several factors, such as socioeconomic status, core curriculum in urban schools, teacher attrition and retention, and the level of experience of the teachers instructing these students possess. Families residing in urban neighborhoods must also deal with increasing crime rates, drug activity, and substandard living conditions (Borland, 1999).

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Vitae

Rochelle I. Harris-Clark was born in East St. Louis, Illinois, to Charles Harris Sr. and Jeanette Harris. In 1998 she entered Harris-Stowe State University, where she earned her bachelor of science in education.

In 2002 she earned her master of arts degree in management from Webster University, located at Scott Air Force Base, Illinois, and in 2003 she received her certification in administration from Southern Illinois University, also located in Illinois.

Mrs. Clark entered Lindenwood University in 2007, where she completed her doctorate in educational administration.

Mrs. Clark worked nine years at Wirth Parks Middle School, located in Cahokia, Illinois. She was a lead teacher, middle school union vice president, and later served as assistant principal. Mrs. Clark is currently working as an assistant principal at Stephen Decatur Middle School, located in Decatur, Illinois.