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Walden University
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Abstract

Correlation Between Grades 4th, 8th, and 11th English Language Arts Scores and High

School Graduation

by

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MS, College of Saint Rose, 1999

BS, Siena College, 1997

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

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Abstract

The focus of this research was on students' low graduation rate in a New York State high school, investigating a possible correlation between students' longitudinal English Language Arts (ELA) exams and their graduation status. In the 2010–11 school year, 25% of the students at the high school of study failed to graduate, a rate which was 5% lower than that of the state average. That result designated the school as failing to achieve annual yearly progress for the overall graduation rate. Despite these documented declines in student performance, the associating factors of this decline were unknown. The purpose of this study was to investigate a possible correlation between students' graduation status and their longitudinal ELA exam scores. The theoretical framework of this study was based on Bandura's social cognitive theory on self-efficacy, which demonstrates the potential negative impacts of ELA exams on students' self-efficacy and their long-term academic success. Research questions investigated correlations between students' ELA exam scores in Grades 4, 8, and 11 and high school graduation statuses. A longitudinal correlation design was used with archival data from a census sample of 1,229 12th grade students from the 2009–10 and 2010–11 school years. Point-biserial Pearson's r was used to analyze data. Results showed that, for the Class of 2009–10, there was no relationship for 4th and 8th grade and a slight relationship for 11th grade and graduation status. For the Class of 2010–11, there was a weak relationship between 4th, 8th, and 11th grade and graduation status. These results support greater focus and funding for ELA interventions at specific grade levels, in order to create positive social change by increasing students' reading achievement on ELA exams, student confidence, self-efficacy, and well being as a precursor to raising the graduation rate.

PREVIEW

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Dedication

I dedicate this paper to my dad, Gary Parese, who helped me learn perseverance and determination. His hard work and consistently positive outlook have been so important in my life. I also dedicate it to Leigh who helped me see beyond numbers and to feel my human side.

PREVIEW

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I want to thank Dr. Mansureh Kebritchi, Dr. Derek Schroll, and Dr. Wayne Benenson. Their patience and assistance helped me get through this monumental task.

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PREVIEW

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Section 1: Introduction to the Study

It is unknown whether there is a correlation between students' graduation status and their longitudinal English Language Arts (ELA) exam scores throughout their education from elementary school to middle and high school. The importance of graduation rates cannot be stressed enough in education today. Graduation rates have continued to fall in the United States, and they are of key importance to understanding the current educational requirements and how to prepare students for the workforce (Dorn, 2009). Students not earning a high school diploma have been found to have lower income, greater unemployment rates, and are more apt to be incarcerated (Randel, Moore, Blair, & the Regional Education Laboratory, 2008). Finding factors related to graduation rates, therefore, is a critical step toward addressing the problems and beginning to make positive changes. It is unknown what the cause of the low graduation rates is for the school of research. Researching a possible correlation between ELA exam scores from elementary school and graduation status could be critical for the school of research and others similar to it. The purpose of this correlational study was to examine the effect of ELA performance upon graduation status for high school students in a New York State district. This study might help to determine what changes need to be made in curriculum and teaching techniques to help more students graduate.

Each year, high schools in New York State must accomplish specific benchmarks to achieve the state mandated scores for yearly progress. According to the New York State Education Department (NYSED, 2011a), the high school of the study did not make annual yearly progress in the area of graduation for 2010 or 2011, as the school only

achieved a 75% graduation rate in 2010 and dropped another percentage point to 74% in 2011 (NYSED, 2012). These scores are 5 and 6% lower than the state requirement of 80%, which all schools must meet in order to be considered as achieving a proficient graduation level (NYSED, 2012). Specifically, this research investigated how students' graduation status at the high school of study in New York State correlated to their longitudinal ELA exam performances.

Since the implementation of the No Child Left Behind Act of 2002 (NCLB), the ELA exams have become one of the most important exams used to assess students, schools, and teachers (NYSED, 2011b). By focusing on ELA exam results and possibly linking them with graduation status, I hope to find a pattern that may provide some evidence of a correlation between graduation status and ELA exam scores.

This research focused on the ELA exam because when I researched the public data for the last 2 years in the school, the summary of the dropout cohort performance for ELA was consistently lower than that for mathematics (NYSED, 2011a). The summary of the cohort performance looked at performance on the state assessments in ELA at the elementary, middle school, and high school levels (NYSED, 2011a). ELA and math were considered the two key areas measured, and in my research, the scores on the ELA levels were consistently lower for students in the cohorts that corresponded to the 2010–2011 graduation years (Kendall, Pollack, Schwols, & Snyder, 2007).

Throughout a student's educational career, the New York State Education Department measures ELA skills more than all other areas. ELA skills are critical for the fundamental development of children into life-long learners (Heller, Wood, & Shawgo,

2007). Sewell (2008) stated that a high amount of literacy skills is required to be successful in American society and that over 3,000 students with restricted literacy skills drop out daily. ELA skills are critical for intellectual and social development to correspond and have relationships with others and to become a successful person (Rivers & Brackett, 2011). According to Davidson (2011), ELA skills are central for the improvement of students in school and even beyond college, and these skills are essential to be successful in life. A student is most at risk if early reading fluency skills are not developed, and if deficits in these areas are not addressed, they will worsen as the student's education progresses (Gyova, Carledge, Kourea, Yurick, & Gibson, 2009). Gyova et al. (2009) showed that literacy skills are critical and must be a primary focus in schools; however, this has not been the case at my school of research, which has not determined a clear cause for the graduation rate problem.

New York State school report cards (from 2010–2011) show that the high school of study has not made annual yearly progress for graduation rate (NYSED, 2012). According to NYSED (2012), annual yearly progress (AYP) indicates acceptable development by a district or a school working toward a goal of proficiency for their population. Annual Measurable Objective (AMO) determines AYP and is the performance value that identifies if a group makes acceptable progress toward accountability. The goal is that 100% of students will be proficient in New York State's standards for ELA by 2013–14 (NYSED, 2012).

Achieving the required AYP and AMO was difficult because over the last 2 years, ELA exam scores were on average 3% lower than the math scores for the same cohorts

for 2010 and 1% lower for 2011 (NYSED, 2011a and 2012). This study focused on whether performance on the ELA exams, which begin in 4th grade and continue in 8th and 11th grades, has any correlation with the graduation status of students at the high school of study in New York State.

New York State has clear procedures that define the repercussions when schools do not meet standards over a specific period of time (NYSED, 2012). Changes must be made to correct this problem, and the aim of this research was to focus on these changes. If the problem of not meeting graduation standard rates continues in my school of research, this decrease may cause funding to be lost, and further, governmental regulations linked to NCLB will force changes to the structure of the school. Besides loss of funding, New York State may require a change in staff and restructuring of the administration, which also are consequences under the NCLB legislation (NYSED, 2012). In my school of research, I was able to identify a correlation between ELA scores and graduation status, and this could help provide insight into what exactly is causing the graduation rate issue. This revelation could also help focus specific attention on students' ELA skills, eventually increasing students' ELA performance and their subsequent graduation status. This may also help to influence changes in curriculum and teaching techniques of ELA at the school of research, which will provide students with more support and greater success.

Problem Statement

At the high school of study in New York State, there was an issue with overall low graduation rates; however, the reason for this decline is unknown (NYSED, 2012).

This study helps to provide statistically significant evidence that students' low performance in the area of ELA is one of the problem areas to focus on in the district. State average scores for acceptable graduation rates are 80%, but the school being researched has fallen below these rates for 2 consecutive years with a graduation rate of 75% in 2010 and 74% in 2011 (NYSED, 2012). It was unknown whether there was a correlation between students' graduation status and their longitudinal ELA exam scores throughout their education beginning in elementary school and through middle and high school. McGrath (2011) investigated reading performance in early grades and high school graduation, suggesting a possible correlation between ELA exams and their graduation status. The purpose of my research was to quantitatively examine ELA exam scores as one possible factor that affects graduation status. McCallumore and Sparapani (2010) found that one of the main areas related to dropping out is poor performance in the area of ELA early on in a student's educational career. This research might show a correlation that could help to influence decisions, funding, human resources, and training that could positively impact graduation rates.

Nature of the Study

A quantitative method using a correlational design was used in this study. I determined this method to be most appropriate because correlation design can answer my research question and provide greater information on the issue of graduation rate. The study utilized longitudinal ELA data for students in the 2010 and 2011 classes. Online school report cards were also used to provide yearly graduation rates. These report cards are publicly available documents that provide overall information about the school and

the graduating classes. The student archival data was accessed through the student management system and student folders after the superintendent provided approval. Individual student ELA exam scores were provided beginning in 4th grade. For students with gaps in data (those missing ELA exam results for 1 or more years), only existing data were used. This research utilized a longitudinal design with census sampling and correlated the seven ELA exam scores from two different classes (2010 and 2011) with their graduation rates. This provided a clearer picture of a potential correlation at the high school of study. Greater detail and information on the design and techniques used in this research is provided in Section 3.

Students in the sample spanned from 17 to 19 years old and were only from the high school of study. Census sampling was utilized to investigate the graduation status of students in the 2010 and 2011 classes because the research school did not make annual yearly progress in the area of graduation in these 2 years, a trend that likely will continue in 2014. Codes were assigned to students' archived records to protect their identity. Approximately 1,000 students comprised the census sample for the study.

The variables of interest were graduation status and ELA exam scores. Graduation status consisted of identifying whether a student successfully graduated or was a noncompleter. ELA exam scores were collected for each student for the 4th, 8th, and 11th grades. The ELA exams utilized multiple methods to assess students including writing, multiple-choice questions, and short answers. Correlations were conducted separately for each ELA exam score in each grade and a student's graduation status. Beginning in the 4th grade, students' grade level ELA exam scores were correlated with their subsequent

graduation status until correlations between all grade level ELA exam scores and graduation status had been analyzed. Regression was also used with the same method to look at possible predictions for each grade level ELA exam score with graduation.

Research Questions and Hypotheses

The goal of my research was to determine whether there was a significant relationship between students' ELA exam results and their subsequent graduation status at the high school of study in New York State. The guiding questions for the research are listed below:

1. To what extent is there a statistically significant correlation between students' ELA exam scores in 4th grade and their high school graduation status?

$H1_0$: There is no statistically significant correlation between students' ELA exam scores in 4th grade and their high school graduation status.

$H1_a$: There is a statistically significant correlation between students' ELA exam scores in 4th grade and their high school graduation status.

2. To what extent is there a statistically significant correlation between students' ELA exam scores in 8th grade and their high school graduation status?

$H2_0$: There is no statistically significant correlation between students' ELA exam scores in 8th grade and their high school graduation status.

$H2_a$: There is a statistically significant correlation between students' ELA exam scores in 8th grade and their high school graduation status.

3. To what extent is there a statistically significant correlation between students' ELA exam scores in 11th grade and their high school graduation status?

$H3_0$: There is no statistically significant correlation between students' ELA exam scores in 11th grade and their high school graduation status.

$H3_a$: There is a statistically significant correlation between students' ELA exam scores in 11th grade and their high school graduation status.

Purpose of the Study

The study focused on determining possible early causes for the graduation rate issue at the school of research and helps to determine if the early-grade ELA exam scores correlate with graduation status. McGrath (2011) discussed a relationship between reading performance in early grades and high school graduation, suggesting that students who did not meet a specific milestone of reading to learn by 3rd or 4th grade had a much higher chance of dropping out. This proves a strong relationship between the performance of students on the early grade ELA exams and their graduation status. My research seeks to prove this connection in the school of research, which could potentially provide information that can be used to guide change.

The purpose of this research was to conduct an empirical study to examine a potential correlation in the high school of study. Presently, an empirical study examining the strength of the relationship between students' graduation status and their longitudinal ELA exam scores has not been conducted at the research school. To investigate the potential relationship, I employed a correlation design in the research to conduct a quantitative analysis in a high school.

Discovering a possible relationship between the ELA exam scores and graduation status was critical to determining why graduation rates are declining and helping to

ensure that this school does not have further state sanctions placed upon it. This research might be monumental in helping to determine how to revise curriculum or develop interventions that address the graduation rate issue. As such, the findings of the study might influence the development of ELA skills to help students at the school of study and other schools with similar situations and demographics.

Theoretical Base

One primary theory that relates to the impact that the ELA skills may be having on graduation status is Bandura's (1986) theory on self-efficacy. Bandura theorized that the development of self-efficacy is a critical part of education. According to Bandura's (1986) social cognitive theory, self-efficacy beliefs help determine the choices people make, their effort and persistence, and the perseverance they display in difficult situations. He also explained that self-efficacy went along with the level of anxiety or tranquility students experience as they engage in tasks that encompass their life. Sewell (2008) stated that students become disengaged when they lack confidence, and they begin to avoid the learning process when they feel insufficient. This often happens when students cannot connect the literature they are studying to their own experiences; therefore, they do not see the value of writing and eventually fall behind (Sewell, 2008). This becomes even more problematic because Sewell (2008) found that antipathy becomes more unshakable as students move through the grades, thus compounding the problem. This demonstrates how critical school can be for the development of a student into a successful person. It shows the potential negative impacts that lack of adequate literacy skills and poor performance in ELA may have on student success and graduation.

Failure in the development of ELA skills may be detrimental to students in the long term. Failure to develop ELA skills may create a negative atmosphere that could negatively impact self-efficacy (Sewell, 2008). Hickman, Bartholomew, Mathwig, and Heinrich (2008) linked low academics in language and social skills to low self-efficacy throughout a child's educational career. These feelings of poor academic mastery and lack of success may lead a student to feel like he or she does not belong in school. When children experience failure in their academics and find school unappealing and not worthwhile, the less likely they are to do well in their high school academics (Hickman et al., 2008).

ELA skills are critical because they are the basis of learning and development and are crucial throughout the educational career of the participants in my study. Research shows that success and failures in major academic areas can have an impact on the creation of self-efficacy (Usher, 2008). According to Usher (2008), self-efficacy develops as students interpret information from four sources, described by Garcia and deCaso (2006) as mastery, vicarious experiences, verbal persuasion, and positive physiological. Primarily, mastery and vicarious experiences are the two sources that may not be successful for students due to poor academic performance.

Mastery develops through success; failure undermines the development of self-efficacy (Garcia & de Caso, 2006). Self-efficacy develops through vicarious experiences; as a student observes others' success or failures, this observation impacts their development of self-efficacy. A critical factor influencing a person's success or self-

efficacy is his or her own previous attainments (Usher, 2008). When a person fails in these attainments, self-efficacy decreases.

There is a strong prediction between literacy rates in elementary school and high school graduation rates (McGrath, 2011). Students who lack a sense of aptitude in literacy separate themselves from the learning process and fall behind (Sewell, 2008). ELA and literacy skills may have a momentous influence on the development of self-efficacy, which could be part of the reason for a possible impact on graduation status. According to Campos-Rivera and Rattray (2011), education starts at birth, and disparities in vocabulary begin very early on, creating an achievement gap that makes students far less likely graduate at the end of high school.

Observational experiences also have an impact on self-efficacy, occurring when students observe others succeeding or failing ELA exams. ELA exams and literacy skills may be critical components required to graduate from high school, which puts considerable negative pressure on students (Smyth, 2008). Seeing others fail or succeed on ELA exams may have either negative or positive implications for their growth of self-efficacy (Usher, 2008). The development of self-efficacy and self-perception are related to success in students' verbal and written abilities. Zenkov, van Lier, Harmon, and Tompkins's (2009) research over a 32-year period found that student disengagement in literacy at the elementary level is highly connected to dropout rates. Failure in the area of ELA may have a negative impact on the development of self-perception and on graduation. This study examined such a relationship suggested by Bandura's self-efficacy theory.