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Academic Intensive Care Units: What is the Impact on Student Achievement?

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Achievement?

by

Brandi Compass

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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 at Lindenwood University and that I have not submitted it for any other college or university course or degree.

Full Legal Name: Brandi Compass

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Abstract

The purpose of this study was to determine if academic intensive care units along with no-zero grading policies at the high school level result in students having higher achievement levels on state EOC assessments. A mixed-methods approach was taken in order to obtain both qualitative and quantitative data from surveys and interviews. Additional quantitative data were analyzed from archival data. Two separate schools were chosen for the populations. High School A implemented academic intensive care units and no-zero grading polices while High School B did not. Participants in the study consisted of both teachers and students at High School A and High School B. Although a conclusion was made indicating academic intensive care units along with no-zero grading policies at the high school level do not result in students having higher achievement on state EOC assessments, further research is needed.

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Chapter One: Introduction

Student apathy has been an ongoing issue since school and education first began (Hill & Nave, 2009). A number of studies, as well as changes in practices and policies, have been generated by educational institutions in response to the lack of student motivation and responsibility (Bender, 2011). Unfortunately, some of these policies have resulted in a larger group of students becoming disconnected and lackadaisical with their school work (Christman, 2014). This leads one to wonder if current practices are effective or whether the practices are creating a world where procrastination and lackadaisical mentalities are affecting student achievements.

One of the most frequent and frustrating behavioral problems for educators is trying to get students to complete their homework (Xu & Wu, 2013). Student achievement is directly associated with behaviors relating to student engagement (Martin et al., 2017). These student engagement behaviors tend to be effort-based action during class participation, homework completion, and students' questioning and information-seeking actions (Martin et al., 2017). Teachers need to develop, replace, and consistently use strategies to enable more student engagement and create a noticeable increase in student success (Hill & Hillman, 2018). Academic intensive care units are focused on having students complete all quality assignments that truly represent the standards to be learned, thus leading to higher student achievement (Hill & Nave, 2009). Hattie and Anderman (2019) suggested society highly emphasizes the importance of achievement.

Background of the Study

Throughout the history of education, educators and policymakers have struggled with the best design for measuring and reflecting student progress on coursework and

learning (Comes, 2015). Therefore, controversies have arisen with all forms of grading policies throughout the years (Comes, 2015). However, through the change of grading policies, the issue of missing and late assignments has not improved (Ryan et al., 2015). In fact, the issue at hand may very well continue to increase throughout the years (Tita, 2010).

Many schools in the United States have the same problem: students do not complete assignments and show poor student achievement scores, which leaves educators searching for solutions to remedy the mentioned problem (Nunez et al., 2015). According to Principals Hill and Nave (2009), teachers have offered encouragement, rewards, and even punishments for students not completing their work, all to no avail, for student apathy is still a constant battle within schools. This is the exact reason Hill and Nave (2009) created the academic intensive care unit while focusing on a no-zero grading policy. Hill and Nave (2009) took the no-zero grading policy one step further and developed the academic intensive care unit based on the premise if a student received a grade of a zero, it is mathematically impossible to overcome. Academic intensive care units were Hill and Nave's (2009) ultimate fight against student apathy and to increase student achievement.

Cureton (1971) conducted extensive research into the grading practices throughout the United States' history. The above-mentioned author (1971) found in the early and mid-19th Century, universities, such as the University of Georgia, were grading on a three-point scale. Through Waddel (1891), Cureton (1971) discovered this scale was broken down using numbers, with mastery students marked as a one, passing students marked as a two, and struggling students indicated with a three. In addition, exemplary

students would be noted with the number one and an asterisk (Cureton, 1971). On the other hand, Cureton's (1971) findings through Waddel (1891) went on to show other universities at the time, such as Virginia Academy, divided students into categories from highest to lowest: optimus, melior, bonus, malus, pejor, or pessimus. These designations were later changed to three simple groups of disapproved, approved, or distinguished students (Cureton, 1971). Cureton's (1971) system corresponds with the idea of those receiving high marks are superior high excelling students and those receiving low marks are lackadaisical, low performing students, or intentional non-learners when it comes to academics (Winston, 2015).

Cureton's (1971) findings were indicated as such, during the late 19th Century, grading practices began to change to percentage grades which were reflected on a 0 - 100% grading scale from which the percentage was obtained from an overall average on assignments. Cureton (1971) went on to note this was the widely adopted grading practice of educational institutions across the United States and Canada during this time. This grading practice continued into the beginning decades of the 20th Century (Cureton, 1971). According to Cureton (1971), the percentage grading practice became more popular amongst educational institutions due to the increased interest in statistics and statistical analysis of educational institutions. Through her research, Cureton (1971) discovered a major flaw with United States educational institutions. The discovered flaw in the grading system determined passing points varied amongst institutions (Larned, 1908). Even upon adding percentage points to assignments, student apathy towards assignments still existed within educational institutions across the United States (Ryan et al., 2015).

Cureton (1971) determined during the mid-20th Century, the preferred grading system shifted towards letter grades. The above-mentioned author (1971) determined the most common letters used for grading were the six groups of A, B, C, D, E, and F. However, schools varied their groupings from six to ten groups (Rugg, 1915; Foster, 1912). The most common letter grades still being utilized today is a grouping of five: A, B, C, D, and F (Brookhart et al., 2016). These particular letter grades are associated with corresponding percentages students earn in class (Brookhart et al., 2016). Building on Winton's (2015) research, the more apathetic students tend to fall in the D and F categories. Winton's (2015) theory is logical and clearly states as students who receive a zero on an incomplete or missing assignment and are not given the opportunity to complete such assignments, will subsequently receive a lower overall percentage.

The current practice of the 21st Century is still mainly based upon percentage grading tied to a specific letter grade (Brookhart et al., 2016). The corresponding percentage grades and letter grades are most commonly recognized as 0%–59% - F, 60%–69% - D, 70%–79% - C, 80%–89% - B, and 90%–100% - A (Brookhart et al., 2016). In addition to these grading scales, more and more schools have begun to adopt the no-zero grading policy (Brookhart et al., 2016; Caneva, 2014). One reason for this shift is due to the grading scale being deemed unfair mainly in regards to an F having a 59-point range while the other grades are spanned across a ten-point range (Brookhart et al., 2016; Caneva, 2014). With schools adopting no-zero grading policies, it was determined students cannot receive a zero or a D or F on an assignment or test and must, therefore, complete all assignments with the opportunity of receiving full credit upon

completion (Tallent, 2016). In conjunction, students must be given as many opportunities as it takes for them to be able to complete high-quality work (Tallent, 2016).

There are many catalysts to the creation of apathetic students (Rimm, 2008). One main contributing factor is students believe their failure comes from lack of ability (Hill & Nave, 2009). The academic intensive care unit and no-zero grading policy were designed to shift this view of failure as being a lack of ability rather than failure being viewed as a lack of effort on the student's part (Hill & Nave, 2009). However, this system has opened the door to other groups of students who have become lackadaisical with their homework by handing in late assignments (Caneva, 2014). Caneva (2014) goes on to say, "It is a terrible lesson to teach any student that it is okay to be lazy, but this lesson is exactly what the no-zero policy says" (p. 54). Top performing students who used to complete work on time before the incorporation of the academic intensive care unit and the no-zero grading policy are now turning in their assignments late as well (Ryan et al., 2015).

These same advanced students who are turning in assignments late during high school go on to be college students (Christman, 2014). Many colleges do not participate in no-zero grading policies nor the academic intensive care unit (Tallent, 2016). Tallent (2016) claims college freshmen have a quick awakening when it comes to being penalized for late work at the collegiate level. Moreover, college professors must decide whether to hold their students to the same standards as secondary institutions or to continue to demand higher expectations (Tallent, 2016). Non-college bound high school graduates are exposed to penalties in the workforce when it comes to employees completing late assignments or projects (Tallent, 2016). In addition, Tallent (2016) goes

on to say these students will experience penalties, such as fees or disconnection of a service, when it comes to paying bills late. These penalties and reprimands are new to students as they were not exposed to or prepared for them during their secondary schooling (Tallent, 2016).

Conceptual Framework

The research conducted for this study is based on the no-zero conceptual framework of Hill and Nave (2009). The no-zero grading policy is a movement within schools mainly seen across the United States and Canada (Hill & Nave, 2009). The no-zero grading concept is built upon the idea that a grade of zero is almost mathematically impossible for a student to overcome (Hill & Nave, 2009). Therefore, the lowest grade which should be permitted is 50%, and every student should be given ample opportunity to complete all assignments with a good faith effort (Caneva, 2014). Hill and Nave (2009) built upon the concept of no-zero grading by creating the academic intensive care unit to alleviate student apathy and to increase student achievement. The academic intensive care unit concept is focused on the premise that every student must complete every assignment while being given the extra time, supports, and reminders needed to put forth the effort to complete assignments while receiving no penalty (Hill & Nave, 2009).

The work completed by Hill and Nave (2009) on academic intensive care units is the main driving force of this study and was used to determine the research questions for this study. Hill and Nave (2009) created the process of the academic intensive care unit to ensure high levels of learning were taking place; the main focus of an educator is to ensure learning is occurring. To achieve high levels of learning, Hill and Nave (2009) believed teachers should only assign high-quality homework assignments that were

important to the learning process, which led to the concept of a no-zero grading policy. Most countries recommend the use of homework (Murillo & Martinez-Garrido, 2014). If an educator believes all assignments are important and therefore, must be completed for learning to occur, then a system was needed to ensure those quality assignments were completed (Hill & Nave, 2009). Furthermore, by assigning only high-quality homework assignments, deeper levels of learning and understanding would be occurring, creating a more meaningful education (Hill & Nave, 2009).

In addition to Hill and Nave's (2009) work, the research conducted in this study is also based on the grading concepts of O'Connor (2009) who stated, "Effort, participation, attitude, and other personal and social characteristics need to be reported separately from achievement" (p. 95). O'Connor (2009) reported that grading students on the aforementioned criteria did not truly depict the students' true intellectual ability. Rather, this type of grading focused on the character traits of the individual and not the depth of knowledge obtained (O'Connor, 2009). Yaffe (2017) suggested separating performance from behavior by applying two separate grades for academic performance and for success indicators pertaining to behaviors. The intent of O'Connor (2009) was not to encourage students to turn in late work. In conjunction with no-zero grading, properly dealing with students' tardiness of submitting assignments would assist students in eliminating the problem (O'Connor, 2009). Hill and Nave's (2009) academic intensive care unit utilizes these intents for addressing student tardiness in assignments bringing the works of O'Connor, Hill, and Nave together cohesively.

In this study, the concept of academic intensive care units and of no-zero grading policies were examined to find the impact the two have on student achievement. The data

from two separate high schools will be analyzed to examine if there was a difference between a high school implementing academic intensive care units and a high school not implementing academic intensive care units regarding student achievement. The findings will reveal whether academic intensive care units and no-zero grading policies lead students to have higher academic achievement on End Of Course (EOC) assessments.

Statement of the Problem

This study is focused on two conceptual models to determine if using the models leads to academic improvement. Even though for decades, research has been focused on the impact of homework on the improvement of students' learning skills (Murillo & Martinez-Garrido, 2014), there is still no definitive answer as to whether homework leads to higher academic achievement. Rawson et al. (2017) stated, "There is a long history of or research efforts aimed at understanding the relationship between homework activity and academic achievement" (p. 208). Most of these studies showed homework has the potential to improve academic learning (Rawson et al., 2017).

Research on the positive and negative effects of no-zero grading policy and academic intensive care units within an educational institution is in existence (Caneva, 2014; Dueck, 2014a; Hill & Nave, 2009; Tallent, 2016; Uttermark, 2014; Zwaagstra, 2015). However, in most of these studies the impact of these programs and policies on student achievement was not explored or discussed (Caneva, 2014; Dueck, 2014a; Hill & Nave, 2009; Tallent, 2016; Uttermark, 2014; Zwaagstra, 2015). Instead, the focus was on the impact these programs and policies had on a student's grades and the detriment zeros had on student grades and student attitudes toward school (Caneva, 2014; Dueck, 2014a; Hill & Nave, 2009; Tallent, 2016; Uttermark, 2014; Zwaagstra, 2015). Additionally,

students displayed higher levels of apathy when zero grades were allowed than when zeros were no longer allowed to be given for a grade (Caneva, 2014; Dueck, 2014a; Hill & Nave, 2009; Tallent, 2016; Uttermark, 2014; Zwaagstra, 2015).

Multiple schools have adopted the no-zero grading policy (Hill & Nave, 2009; O'Connor, 2009). Furthermore, the implementation of no-zero grading appears to be growing in use; however, research on this implementation appeared to be lacking and most are measurement studies that argue against the statistical power of a grade of zero (Bolger, 2013). Minero (2018) posited grading should be about feedback, and neither no-zero grading nor grades including zeros are proven remedies for poor student performance; thus, more research is needed on the use of no-zero grading and the impact on student achievement.

The intent of O'Connor (2009) was not to encourage students to turn in late work. Instead, the tardiness of students submitting late assignments must be dealt with in a manner in which grades reflect a true meaning and commute a clear information about students' achievements (O'Connor, 2009). In conjunction, dealing with the tardiness in a correct manner assists students in eliminating the problem (O'Connor, 2009). Hill and Nave's (2009) academic intensive care unit utilizes these intents for addressing student tardiness in assignments bringing the works of O'Connor, Hill, and Nave together cohesively. The results of this study may be beneficial to schools considering adopting no-zero grading policies or academic intensive care units.

Purpose of the Study

The purpose of this study was to determine if academic intensive care units along with no-zero grading policies at the high school level result in students having higher

achievement levels on state standardized testing such as EOC assessments. In addition to looking at student achievement with academic intensive care units, student and teacher perceptions of academic intensive care units were analyzed. It was important to gain these perceptions at a school which does implement academic intensive care units and no-zero grading policies as well as from a school which does not implement academic intensive care units and no-zero grading policies

Research Questions and Hypotheses

The following research questions and hypotheses guided the study:

1. What is the difference between the perceptions of high school students who believe intensive care units are beneficial for students when compared to high school teachers who believe intensive care units are beneficial for students?

$H1_0$: There is not a significant difference between the perceptions of high school students who believe academic intensive care units are beneficial for students when compared to high school teachers who believe academic intensive care units are beneficial for students.

$H1_a$: There is a significant difference between the perceptions of high school students who believe academic intensive care units are beneficial for students when compared to high school teachers who believe academic intensive care units are beneficial for students.

2. What benefits do high school students and high school teachers identify with the academic intensive care units no-zero grading program?

3. What challenges do high school students and educators identify with the academic intensive care units no-zero grading program?

4. What is the difference between student achievement scores on state EOC assessments at High School A compared to High School B?

$H4_0$: There is not a significant difference between student achievement scores on state EOC assessments at High School A compared to High School B.

$H4_a$: There is a significant difference between student achievement scores on state EOC assessments at High School A compared to High School B.

5. What is the academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program?

$H5_0$: There is no academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program.

$H5_a$: There is an academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program.

Significance of the Study

By focusing on the conceptual framework, the findings from this study add to existing research on the topics of academic intensive care units and no-zero grading policies in regards to student achievement. According to Dennis (2018), grading policies have been at the center of controversy in education, and historically no one grading system has worked for all teachers and students. Academic intensive care units and no-zero grading policies are relatively new in the academic world (Bolger, 2013). Even though research can be found on no-zero grading practices, scholarly research is very

limited outside of statistical views, theoretical theories, and opinion-based studies (Bolger, 2013). This left a gap in research regarding the exploration of whether these practices are helping secondary students have higher achievement scores on EOC assessments. Since many schools have adopted the no-zero grading policy (Hill & Nave, 2009 & O'Connor, 2009), this study has provided additional information on no-zero grading policies and academic intensive care units allowing stakeholders to become better informed on potential outcomes and impacts of implementing these programs and policies.

Definition of Key Terms

For the purposes of this study, the following terms are defined:

504 Plan

A 504 plan is developed to ensure a student who has a disability identified under the law and is attending an elementary or secondary educational institution receives accommodations that will ensure his or her academic success and access to the learning environment (University of Washington, 2018).

Academic Intensive Care Unit

Hill and Nave (2009) created the academic intensive care unit and defined it as an academic communication tool. The unit is a shared, school-wide electronic document used to track missing assignments, so assignments are instantly logged for all with access to view immediately upon submission into the database (Hill & Nave, 2009).

End of Course Assessment

The End of Course (EOC) exam is an assessment given to all students in the state of Missouri when students have received instruction on Missouri Learning Standards

(Missouri Department of Elementary and Secondary Education, 2020a).

Individualized Educational Plan (IEP)

An IEP is a plan or program developed to ensure a student who has a disability identified under the law and is attending an elementary or secondary educational institution receives specialized instruction and related services (University of Washington, 2018).

No-Zero Grading Policy

This is a grading policy that does not allow teachers to give zeroes on an assignment (Lynch, 2017).

Student Apathy

This is the indifference or lack of emotional connection towards academics (Hill & Nave, 2009). Furthermore, student apathy is the lack of motivation for students to participate in educational efforts (Hill & Nave, 2009).

Delimitations, Limitations, and Assumptions

The scope of the study was bounded by the following delimitations:

Time Frame

Data collection took place over one semester. This was the second semester of the school year during the month of March, 2021. This allowed time for surveys and interviews of students and teachers to take place. The archived data collected during this time frame consisted of EOC assessment scores from three different school years: 2016–2017, 2017–2018, and 2018–2019.

Location of the Study

The geographical location of the study occurred at two separate schools where students and teachers were interviewed via phone or video conferencing for the purpose

of data collection.

Sample

The participants of this study were composed of two separate groups. The first group of participants was composed of high school teachers from two separate schools. These included both male and female teachers. The second group of participants were composed of high school students from the same two high schools as the teachers. These participants included 9 to 12-grade students ranging in age from 14 to 19 and consisting of both males and females.

Criteria

To be a participant in the research, one must have attended either High School A or High School B as a student at the high school or should have been employed as an educator in either educational facility. Only participants who had served four or more years as a certified teacher were considered when selecting the sample.

The following limitations were identified in this study:

Sample Demographics

The sample in this study was a limitation. Students and teachers from high schools A and B were surveyed for this study. The demographics of the sample are very specific to the location of the study; therefore, demographics may vary in other locations. The same results may not yield exactly in another region or with a different demographic sample in the same area.

A further limitation of the sample was students with 504 Plans and IEPs were included in the study. Some of these students have allowances within their 504 plans and IEPs to allow extended time for assignments to be completed. Thus, this could skew data slightly.

Instrument

The instrument for this study was a limitation. The primary investigator created survey questions and interview questions which were administered to students and educators at High Schools A and B.

Self-reported Data

This study relied heavily on participants' comments and responses to surveys. Self-reported data are limited by the fact that the data can rarely be independently verified (University of South Carolina, 2018).

The following assumptions were accepted:

1. The responses of the participants were offered honestly and without bias.
2. The inclusion criteria of the sample are appropriate, and therefore, it is assured the participants have experienced the same or similar phenomena of the study.
3. Participants have a sincere interest in participating in the research and do not have any other motives.
4. The sample was representative of the general population of educators who held teaching certificates from the MODESE.

Summary

In Chapter One, the background of the study and the conceptual framework were discussed. The purpose of this study was to determine if academic intensive care units along with no-zero grading policies at the high school level result in students having higher achievement levels on state standardized testing such as EOC assessments. The research questions and hypotheses were listed. The significance of the study, definitions of key terms, and delimitations, limitations, and assumptions were addressed.

A review of the literature was presented in Chapter Two. After a brief introduction, a discussion of the conceptual framework was presented. The remainder of the chapter consisted of a review of the literature regarding homework and achievement, incomplete and missing assignments, concept behind academic intensive care units and no-zero grading, benefits of academic intensive care units and no-zero grading, and opposition to academic intensive care units and no-zero grading.

Chapter Two: Review of Literature

The purpose of this study was to examine the impact on student achievement of the academic intensive care unit and utilization of no-zero grading policies which were developed by Hill and Nave (2009). More specifically, it was intended to determine whether the academic intensive care unit along with no-zero grading policies led students to have higher academic achievement on EOC assessments. This precise problem was kept in mind when conducting this study through the question: Does the use of academic intensive care units along with no-zero grading policy in secondary education lead to higher academic achievement on EOC assessments?

The no-zero conceptual framework was used to guide this study. Many have researched the benefits and hindrances of academic intensive care units and no-zero grading policies (Bell, 2016; Brookhart, 2012; Brookhart et al., 2016; Comes, 2015; Dunham, 2008; Fushell, 2013; Hill & Nave, 2009; Minero, 2018; O'Connor, 2009, Tallent, 2016). However, the benefits and hindrances did not answer the important questions in this study. It was deemed important to investigate the justifications of implementing academic intensive care units and no-zero grading policies as well. Just as important, were the exploration of other authors' perceptions and concepts relating to academic intensive care units and no-zero grading policies.

The literature reviewed for this study was divided into five categories: homework and achievement, incomplete and missing assignments, concept behind academic intensive care units and no-zero grading, benefits of academic intensive care units and no-zero grading, and opposition to academic intensive care units and no-zero grading. In the first section, the literature on the relationship between homework and student

achievement was reviewed. In the second section, topics of why students have missing and late assignments were investigated. Insight behind the problem of missing and late work was described. In the third section, the reasoning behind academic intensive care units and the development of no-zero grading was assessed. In the fourth section, prior research on these topics which addressed the pros of these programs and policies was discussed. Additionally, in this section research from proponents of these programs and policies was explored. In the last section of this literature review, the cons and negative aspects of these programs and policies were described. The reasons these programs and policies were viewed as negative within school systems were discussed. By choosing these five categories, analysis of the academic intensive care unit and no-zero grading policy at deeper levels and former determinations of these programs and policies impacting student achievement were presented.

Conceptual Framework

In this study, the conceptual framework centered on Hill and Nave's (2009) creation and implementation of academic intensive care units was utilized. Hill and Nave (2009) believed every student could succeed, complete all work, understand deep levels of learning, and graduate no matter how involved each student was in school or how deeply they were affected by student apathy. The concept behind academic intensive care units is that even the most apathetic students will complete work and in turn have higher student achievement (Hill & Nave, 2009). In addition, O'Connor's (2009) concepts on grading practices, especially that grading should have meaning and that grading should be based strictly on academic achievement, will serve to guide the study. O'Connor (2009) extensively researched the concept of implementing no-zero grading policies.

O'Connor (2009) suggested academic institutions should grade for actual academic understanding rather than on student behaviors related to assignments.

The study of homework and its relationship to student academic results has been researched for years (Fan et al., 2017; Rawson et al., 2017; Valle et al., 2019; Volley, 2017). Thus, concepts derived from research on effective homework practices were used to frame the study. Specifically, concepts from Marzano, Pickering, and Pollock's (2001) research regarding the importance of homework having an identified and articulated purpose were considered. In addition, there have been numerous studies conducted on the effects of homework completion and academic success (Vandenbussche et al., 2014). However, Vandenbussche et al. (2014) found few studies have been conducted on which policies were most effective in encouraging homework completion and student success.

Homework and Achievement

Homework and the effectiveness of doing homework, in relation to student achievement, have been ongoing controversial issues for decades among educators (Bas, 2017). Additionally, the debate surrounding the importance of homework and the effect it has on student learning is based on ample research with varying viewpoints (McGlynn & Kelly, 2019). According to Minke (2017), "Homework is viewed by some as a vital key to student achievement in today's society" (p. 6). These findings were compared and contrasted in this section.

Homework and academic life go hand in hand (Planchard et al., 2015). Even with knowing this, students frequently question the validity and usefulness of homework, making this a reason for procrastinating or simply not completing assignments both at the K-12 level and post-secondary level (Planchard et al., 2015). According to research

conducted by Bennett (2017) and Krashen (2005), homework was linked to higher grades but not necessarily correlated to higher achievement on standardized tests. Bennett (2017) also reported many students tended to view homework as boring or monotonous. Through Bennett's (2017) research, it was discovered with a lack of engagement, the interest, attention, investment, and efforts students put into their learning leads to diminished learning. The lack of student engagement and the negative effects on learning is why effective instruction, learning practices, homework assignments, and educational experiences should not create situations where students become bored; instead, educational learning practices should be meaningful (Bennett, 2017). When students find homework tasks to be boring or meaningless, the chances of failure to complete the assignment and tendencies to procrastinate increase (Planchard et al., 2015).

According to Dickson (2016), homework is an excellent form of practice for students to become proficient with a skill or concept. In addition, practice through homework helps develop students' skills, such as critical thinking, and encourages richer, deeper, and more in-depth understanding of material (Dickson, 2016). If educators deem it necessary to assign homework, then it should be rich and meaningful, therefore lending to the idea it is important for the student to complete those assignments (Hill & Nave, 2009). With the idea of all assignments being important, schools have adopted the no-zero grading policy and academic intensive care units (Hill & Nave, 2009). The use of these practices and policies makes it so students cannot be given a zero for missing, late, or poor-quality work, while also providing students with ample opportunities to submit high-quality work with additional time to complete missing assignments for full credit (Uttermark, 2014).

For homework to be productive, it needs to be meaningful (Hill & Nave, 2009). When students know why they are doing homework, they are more engaged and inspired to successfully complete the assignment (Baran, 2019). Homework serves two main purposes: instructional and non-instructional (Bas, 2017). According to Bas (2017), when assigning homework for instructional purposes, the assignment provides the following opportunities: practice, review of material, reinforcement of concepts, introduction of new material, assessment, resource implementation, implementation of skills, production of individual products, and the application of concepts. Bas (2017) described non-instructional assignments as providing and establishing a means of communication between parents and students regarding work performance and homework importance. Additionally, non-instructional assignments allow students to acquire self-confidence, responsibility, and self-discipline (Bas, 2017). Assigning homework communicates to students the need to take responsibility for their learning (McGlynn & Kelly, 2019).

According to Jerrim et al. (2019), "Homework has traditionally been considered positive for students' academic achievement" (p. 1021). Per the research conducted by Kalenkoski and Pabilonia (2017), homework improves students' performance on tests and semester GPA. Many parents of low-income status value homework as an important connection between the curriculum and the school (Bempechat, 2019). In contrast, incomplete homework and inadequate effort or engagement with assignments are some of the main causes of poor grades (Rimm, 2008).

There are standard behaviors and attitudes amongst a community, involving perceptions of which behaviors are typically performed; thus, there is the standard students must complete their homework (Nadelson et al., 2016). Most parents want their

students to have homework; this is why some schools have shifted from mandatory homework to suggested homework (Zalaznick, 2018). Allowing for student choice boards, activities, or assignments for homework has become widely approved (McGulley & Kelly, 2019). By allowing student choice, students more willingly take ownership and choose an assignment that best suits their learning style (McGulley & Kelly, 2019). Additionally, choice boards are a form of differentiated instruction, and differentiated instruction creates competent students who learn well (Wormeli, 2018).

According to Zalaznick (2018), there are also arguments for eliminating homework. One reason is there are no negative impacts on academics with no longer having homework (Zalaznick, 2018). An additional reason for removing homework was suggested by Schmidt et al. (2016), "When students go home to work on homework, some of them have well educated parents that can assist them with the work while others have parents that are not knowledgeable in the content and cannot assist them with their homework," (p. 1). Studies have shown neutral impacts on achievement when homework is removed from a course (Roschelle et al., 2016).

Another argument against homework completion is feedback is not timely (Roschelle et al., 2016). Without proper feedback, an assignment lacks value and is subsequently busy work (McGulley & Kelly, 2019). Even though the importance of grading homework and providing feedback promptly is evident, homework feedback is provided less often by teachers due to the time-consuming nature of the work (Rosario et al., 2015). Feedback should be provided in a variety of manners: checking for homework completion; checking for homework accuracy; correcting homework either orally, on paper, or the board; writing comments/suggestions; assigning grades; giving praise or

criticisms; or a combination of any of these (Cunha et al., 2019; Fernandez et al., 2016; O'Connor, 2009; Rimm, 2008; Rosario et al., 2015; Valle et al., 2019; Volley, 2017).

Another argument in opposition to assigning homework is that homework is viewed as busywork and serves no real purpose (McGulley & Kelly, 2019). According to O'Connor (2009), students tended to rebel against spending time on busy work. O'Connor (2009) went on to say homework is given as practice, so if students have mastered a concept, there is no need to practice it, or if a student does not know the material, one should not have them continue to practice it incorrectly. Assigning busy work or excessive amounts of homework has little to no impact on student achievement (Pinerio et al., 2019). The amount a time an individual student puts into homework is a reflection of his or her commitment and diligence to the assignment, and thus should yield positive results (Pinerio et al., 2019). However, students who spent more time on homework had concentration issues and major gaps in their learning (Fernandez-Alonso et al., 2015).

Incomplete and Missing Assignments

To study academic intensive care units and no-zero grading, it was necessary to examine why students are not completing assignments on time. Bender (2011) suggested student barriers must be identified and proactive steps must be implemented to decrease the number of low performing students. Barriers are any item, event, or activity that prevents a student from being able to perform any academic task (Bender, 2011). Student barriers to performing academic tasks are precisely one area Hill and Nave (2009) investigated when developing the academic intensive care unit. Through Hill and Nave's

(2009) findings, numerous causes and barriers for students not completing assignments on time were uncovered.

Student apathy is a growing barrier which is becoming more prevalent in every school in every state within the United States (Bender, 2011). Furthermore, in the United States, student apathy has risen to a level that places education at grave risk (Bender, 2011). The National Center for Education Statistics (NCES) backed this claim by indicating student apathy is a barrier to student and school success and remains problematic at all levels of education (Provasnik et al., 2007). Hill (2014) claimed most schools have labeled, on average, 35% of their student body as apathetic (p. 13). Hill (2014) described student apathy as a lacking of interest or concern. An apathetic student is not threatened by zeros, does not care about failure on the horizon, is deaf to speeches and lectures geared towards motivation, and has an attitude of simply just leave me alone (Hill, 2014).

In addition to student apathy, academic procrastination plays a key role in missing and late assignments (Ryan et al., 2015). Academic procrastination is the continuous or occasional delay of academic duties (Kandemir, 2014). There are studies to support both cognitive and non-cognitive factors that contribute to academic procrastination (Kim et al., 2016). One of the main factors of academic failure is academic procrastination (Abdi Zarrin & Gracia, 2020). Procrastination itself is viewed as having a preference for short-term benefits over long-term benefits (Kandemir, 2014). Limited English proficiency, academic efficacy, academic achievement, personality traits, gender, socioeconomic status, self-esteem, and intelligence are all contributing factors towards academic procrastination (Kim et al., 2016). Through research on academic procrastination, it was

determined procrastination among college, and university students were mainly associated with tests, social anxiety, inefficient learning strategies, pathological conditions, and the fear of failure (Katz et al., 2014). Also, the research conducted among adolescences revealed procrastination to be associated with low self-esteem and a lack of self-regulation behaviors (Katz et al., 2014).

In some instances, there are so many assignments being completed well past their due dates, academics being affected and are at risk (Trautwein & Köller, 2003). By the time quizzes and assessments are scheduled, students do not have the foundation or adequate practice of the skill required for corresponding assessments (Trautwein & Köller, 2003). These types of practices and policies have been put in place at middle schools, junior highs, and secondary schools throughout the United States (Christman, 2014).

Ryan et al. (2015) suggested college students procrastinate in completing assignments and are late with those assignments for two main reasons. The first suggested by Ryan et al. (2015) is being those students are ill-equipped and unprepared upon leaving high school to meet the level of rigor associated with collegiate work. Secondly, Ryan et al. (2015) argued students have not been subjected to appropriate nor practiced levels of motivation and discipline. Ryan et al. (2015) and Katz et al. (2014) agreed that the deficiencies caused by the lack of these skills caused college students to fail when dealing with time constraints. Abdi Zarrin and Gracia (2020) stated, "Procrastination usually occurs when one activity is unnecessarily delayed, and individuals experience extremely severe agitation when they start thinking about it" (p. 34). Thus, creating an environment in which students want to put off academic tasks as

well as other tasks (Ryan et al., 2015). According to Beleaua and Cocorada (2016), procrastination is an unwanted behavior which can bring about negative consequences.

The average bachelor's degree program in the United States is developed to be completed within four years (DesJardins, Kim, & Rzonca, 2003). DesJardins et al. (2003) went on to say through Adelman (1990), the amount of time being spent by students to obtain a bachelor's degree is increasing over the years. Colleges and universities throughout the United States have also seen a decrease in homework completion by students and an increase in late assignments being submitted (Tallent, 2016). According to Christman (2014), there is evidence from multiple survey-based studies to present academic procrastination may be on the rise with American university and college students. Christman (2014) went on to claim American university and college students are spending less time studying, are less actively involved in student groups, and are increasingly not caring about assignments more than ever.

One of the recurring main arguments for late work when examining student apathy and procrastination is self-efficacy (Gascoigne, 2015). Self-efficacy is related to one's judgment of his or her capabilities and how they affect motivation and behavior (Gascoigne, 2015). Self-efficacy has consistently been linked to academic achievement (Barouch-Gilbert, 2016). When students perceive themselves as not being capable of completing a task, they simply push those tasks aside and leave or forget about them, thus contributing to students acquiring missing or late assignments in their courses (Katz et al., 2014). Through exploring students' beliefs in their capabilities to perform academically, educators may be able to improve upon strategies for assisting academically struggling students and eventually enable them to move from academic

probation to good academic standing (Barouch-Gilbert, 2016). The academic intensive care unit and no-zero grading policy are strategies for combating low self-efficacy (Hill & Nave, 2009).

Barouch-Gilbert (2016) completed a study on student self-efficacy while on academic probation. Barouch-Gilbert (2016) determined support from family, friends, and educators created a significant impact on students' academic attainments. Furthermore, positive support improved self-efficacy in these students (Barouch-Gilbert, 2016). The academic intensive care unit was designed by Hill and Nave (2009) to be a positive support for students to increase students' views on positive self-efficacy, decrease student apathy, and increase academic standings.

The contributing factors of poor student engagement can be detrimental to students' academics (Bender, 2011; Gascoigne, 2015; Hill, 2014; Hill & Nave, 2009; Kandemir, 2014; Katz et al., 2014; Kim et al., 2016; Planchard et al., 2015; Provasnik et al., 2007; Ryan et al., 2015). Poor student achievement can lead to student drop-out rates increasing at secondary and post-secondary levels, depression amongst students, and loss of self-worth (Barouch-Gilbert, 2016; Bender, 2011; Gascoigne, 2015; Hill, 2014; Hill & Nave, 2009; Kandemir, 2014; Katz et al., 2014; Kim et al., 2016; O'Connor, 2009; Planchard et al., 2015; Provasnik et al., 2007; Ryan et al., 2015). Sage (2010), as cited in Barouch-Gilbert (2016), reported 42% of first-time degree-seeking students in the United States who attend a four-year university do not graduate from the school (p. 153). Houle (2013), as cited in Barouch-Gilbert (2016), found numerous students do not meet academic expectations and are dismissed from higher educational institutions making up 25% of all departures (p. 153).

Concept Behind Academic Intensive Care Units and No-Zero Grading

For this study, it was important to know the purpose, ideas, and concepts behind establishing academic intensive care units and no-zero grading policies within schools. Knowing the importance behind establishing academic intensive care units and no-zero grading policies assisted with identifying successes and failures of the program and policy when looking for differences between missing or late work and academic achievement at High School A and B. Reviewing both the successes and failures of the program were crucial to fully researching academic intensive care units and no-zero grading policies.

Hill and Nave (2009) wanted something more enriching and meaningful for their students than allowing them to submit poor quality work or no work at all. Hill and Nave (2009) saw the possibilities of no-zero grading but wanted to take it further and truly require high-quality work from their students. Hill and Nave's (2009) desire to require high-quality work from their students brought about the concept and implementation of academic intensive care units, more specifically, it was the premise for the creation and implementation of their program, *The Power of ICU*. Hill and Hillman (2018) stated, "Cleansing grading practices demands that all essential information about student achievement is separate from behaviors" (p. 1). The Power of ICU communication tool quickly and easily provides information to teachers, administrators, parents, and students (Hill & Nave, 2009). The ICU database keeps track of every missing assignment among students submitted by teachers (Barmeier, 2018). Academic intensive care units bring this realization to light—with just one missing assignment, a student's grade suffers, and intervention needs to occur (Hill & Nave, 2009). According to Hill and Nave (2009), academic intensive care units are a form of no-zero grading. Hill and Nave (2009) also

explained the effectiveness of academic intensive care units is that teachers, parents, coaches, and administrators constantly communicate with each student to assist the student to complete and submit school work.

Hill and Nave (2009) described the Power of ICU as "an intrinsic program based on building professionalism, intrinsic desire, and a seamless form of communication" (p. 79). The concept behind Hill and Nave's program is students will be so engaged in school work that problematic behaviors will decline (Hill & Nave, 2009). Having students become more engaged in school work is important because academic intensive care units utilize no-zero grading policies (Hill & Nave, 2009). The strategies implemented through the Power of ICU are proven successful for professional bill collectors and financial advisors who deal with similar apathetic behaviors; moreover, educators are experts at consistently dealing with student apathy and teaching student responsibility (Hill, 2014).

Hill (2014) recommended educators teach their students to approach assignments in the same mindset as they would approach paying personal debts. The concept behind the academic intensive care unit was based upon business practices with debt collection; missing assignments are considered equivalent to personal debt (Hill, 2014). Debt collectors never leave a person alone, constantly calling throughout the day; teachers must do the same when it comes to missing assignments (Hill, 2014). Also, Hill (2014) discussed debt collectors never give up. Teachers must be persistent and not allow students to ignore assignments or turn in poor quality work (Hill, 2014). The third concept Hill and Nave (2009) used behind their concept of academic intensive care units is financial advisors are experts in teaching responsibility. These advisors teach clients to make financial lists, prioritize, and pay off debt (Hill, 2014). Educators should teach

students these same habits and practices to train students to be more responsible (Hill, 2014).

O'Connor (2009) is a proponent of not penalizing students for late work. O'Connor (2009) claimed there is many years' worth of data from teachers utilizing penalties for late work which had little to no effect on student behavior, thus allowing penalties provided students an excuse not to complete the work. O'Connor (2009) strongly argued grades and behavior must be kept separate. When grading responsibility, teachers grow weary, grades become skewed, and student apathy is not solved (Hill, 2014).

Grading practices over the years have been questionable (O'Connor, 2009). Guskey and Bailey (2001) discussed some of these questionable grading practices: (a) using simple averages, (b) lowering grades for behavior, and (c) the utilization of zeroes. It was through these three questionable practices the concept behind no-zero grading came about (O'Connor, 2009). Marzano (2006) presented a very clear and strong message claiming, "one absolute rule—a student should not be assigned a zero for not taking a test, not turning in an assignment, or turning it in late" (p. 115). Marzano's (2006) work contributed to the concept behind no-zero grading.

Hill and Nave (2009) reviewed the research and concluded the implementation of an academic intensive care unit would benefit all students. Hill and Nave (2009) decided if work was important enough to be assigned, then it was important for every student to complete those assignments. This inspired Hill and Nave (2009) to combat student apathy and disperse the questionable grading practices in place across the United States. O'Connor (2009), along with Hill and Nave (2009), argued it is mathematically

impossible for a student to overcome a zero, so instead of allowing the behavioral grade of a zero to take precedence, they stressed the student should be given ample time to complete the assignment and accurately represent the knowledge gained academically for proper assessment.

In most cases of schools implementing no-zero grading or academic intensive care units, teachers cannot allow a grade of 50% or below (Lynch, 2017). Students are given additional time to submit assignments with satisfactory effort (Hill & Nave, 2009). No late penalties are assigned, and students are allowed to receive full credit for satisfactory work submitted late as long as they exude a good faith effort on the assignment (Hill & Nave, 2009; Lynch, 2017; O'Conner, 2009). Furthermore, no-zero grading policies focus on grading a student regarding knowledge gained through academics and not through behaviors (Lynch, 2017).

Through academic intensive care units, Hill and Nave (2009) wished to create an army behind the teacher pushing the student to complete assignments. To achieve this, they created the ICU Database, a database that sends electronic mail or text message notifications to parents instantly upon their child being entered into the database (Hill & Nave, 2009). Also, any teacher, administrator, counselor, or secretary can access the database, search for a student, and instantly see which assignments are missing and for which teacher (Hill & Nave, 2009). The shift of support behind the student from one teacher to a group of people who support the student and the teacher removes the acceptance of student excuses (Hill & Nave, 2009). Some schools have adopted a no tolerance homework policy, such as academic intensive care units, and discovered

students will rise to the occasion when teachers and administrators hold students accountable for completing their homework (Dennis, 2018).

However, the ICU Database should not be the only form of communication between teachers and parents; instead, teachers should routinely make one parent phone call a day and send parent emails out routinely (Hill & Nave, 2009). By doing this, parents begin to trust and appreciate the teacher, thus shifting their support from backing the student for not completing the work to trusting the teacher and backing the teacher to encourage work to be completed (Hill & Nave, 2009). O'Connor (2009) claimed grades should be used as a communication tool to inform parents and guardians about students' intended learning goals and achievements and struggles with those goals. Using a grade of zero does not accurately depict achievements or struggles with learning goals (Marzano, 2006).

Peters and Buckmiller (2015) researched grading practices as well. Peters and Buckmiller (2015) concluded current grading systems are more than a century old, and throughout implementation, have continued to be carried out without a great deal of meaningful, thorough, and supporting research (Peters & Buckmiller, 2015). Hill and Nave (2009) incorporated the ideas of other researchers and created the academic intensive care unit which is currently implemented across the world, namely in the United States and Canada.

Benefits of Academic Intensive Care Units and No-Zero Grading Policies

There are benefits of academic intensive care units and no-zero grading policies, and Hill and Nave (2009) praised the potential behind these practices. Bolger (2013) also described the academic potential of implementing no-zero grading within the school. In

this section of the literature review, the benefits and positive outcomes of academic intensive care units and no-zero grading policies were discussed and examined.

Teachers often report higher rates of incomplete assignments than students admit (Bennett, 2017). The number of incomplete assignments could be attributed to students not realizing work is late because they lack self-awareness (Bennett, 2017). Even though teachers admit there is a problem with homework completion, assignments continue to be assigned in an attempt to teach responsibility and accountability (Bennett, 2017). The purpose of homework is to assist students with mastering achievement with a specific skill through practice; demonstrating mastery through completed homework should be required (Uttermark, 2014). If a student does not demonstrate mastery of a concept on a homework assignment, then the student should be required to rework the assignment to reach mastery level (Uttermark, 2014). No-zero grading allows for this type of learning to occur through re-dos and extensions to ensure learning is occurring, learning goals are being utilized, and students are meeting those goals (O'Connor, 2009). It is important students be given the additional time to complete assignments to a mastery level, and teachers should ensure this is occurring on the students' time (Hill, 2014). Hill (2014) concluded if students are required to make up assignments on their time when they would rather be doing something else, then a sense of urgency is realized, and assignments will begin to be submitted on time.

Proponents of no-zero grading and academic intensive care units argued these practices allow students to stay in school and reduce drop-out rates (Hill & Nave, 2009). As said by Guskey (2004), the use of zeros in grading causes students to turn away and withdraw from learning. In accordance with Dunham (as cited in Bulger, 2013), a school

in Germany had a large dropout rate amongst ninth-grade students. Dunham (as cited in Bulger, 2013) went on to say this situation contributed to students feeling as if they were so far behind, they had no chance to catch up, and it was easier to give up and drop out rather than work through endless late assignments. No-zero grading and academic intensive care units require students to make up missing assignments early on when struggles occur, thus not allowing for missing assignments to pile up and not be completed (Hill & Nave, 2009).

No-zero grading and academic intensive care units provide a new way of motivating students outside of penalties (Hill & Nave, 2009). Most students downplay penalties and gladly accept a zero grade; thus, penalties do not affect motivation (Dueck, 2014b). However, students claim having the opportunity to redo an assignment for a chance to improve creates motivation (Dueck, 2014b). Students should be taught the responsibility of completing assignments and should immediately be assigned to after school hours or Saturday school to complete missing assignments (Guskey, 2004). Guskey (2004) noted the consequence is immediate, direct, and academically sound. Consequences push students to realize teachers are serious about school responsibilities and that students need to become serious about school responsibilities as well (Guskey, 2004).

It is hard for students to overcome the adverse effect of a zero grade—mathematically speaking (Caneva, 2014; Hill & Nave, 2009; O'Connor, 2009; Reeves et al., 2017). According to Reeves et al. (2017), "When grades are lowered because of late work or missing homework, especially if the penalties are severe, students can lose hope that they can catch up, which reduces their motivation to try" (p. 44). If the work is

important, it is far better to be handed in late than not at all (Hill & Nave, 2009; Reeves et al., 2017). Reeves et al. (2017) argued if students need to submit late work, they do not need their grade docked, but rather students should be given supports and additional time to complete those assignments. Academic intensive care units are precisely the support struggling students with at-risk grades need (Hill & Nave, 2009).

Teachers find a lot of power with the use of a zero in grading (Guskey, 2004). Teachers use the zero to penalize for missed deadlines, lack of effort, failing to show responsibility, misbehaving in class, or even refusing to heed teachers' warnings (Guskey, 2004). The use of academic intensive care units and no-zero grading policies removes the option of punitive grading, shifting the focus from behavioral grading to academic grading (Hill & Nave, 2009; O'Connor, 2009). According to Guskey (2004), removing the zero allows the grade to represent how well a student has comprehended the material, mastered established learning standards, and achieved specific learning goals and targets.

McMillan (2001) claimed there is a wide range of variability in grading practices, thus creating very little consistency within districts, schools, and classrooms, even when the same grading policies are adopted by all. To summarize McMillian's (2001) research, teachers generally use four categories when it comes to grading: (a) academic achievement, (b) academic enablers: improvement, participation, responsibility, ability, and effort, (c) use of external benchmarks, and (d) use of extra credit and bonus points, especially when looking at borderline grades. The exact reasoning of variability and inconsistencies in grading is one of the aspects which led proponents of no-zero grading to fight for its implementation within schools (O'Connor, 2009). Through Yesbeck's

(2011) study and examination of previous studies and research, it was concluded academic achievement continues to be the most important component when dealing with grading students' assignments and assessments.

Opposition to Academic Intensive Care Units and No-Zero Grading Policies

As with most policies, practices, and procedures, no-zero grading and academic intensive care units are subject to opposition and resistance (Tallent, 2016). These practices and policies have been scrutinized by the public (Yesbeck, 2011). No-zero grading has been dissected in many countries and is currently being viewed as a fad by countries outside of the United States—some arguments are compelling, while others hold no merit (Zwaagstra, 2015). Arguments against academic intensive care units and no-zero grading policies were addressed in this section.

Zwaagstra (2015) argued once students catch on to no-zero grading, then they quickly realize due dates are not set in stone and perceive due dates as mere suggested submission dates. Also, Zwaagstra (2015) claimed this causes teachers to fall into an endless battle with students to hand in assignments on time. On the other hand, Tallent (2016) argued teachers could use the system to teach students to understand the importance that demanding high-quality work is to be submitted by a deadline. Downey (2015) interviewed several high-achieving high school students about what they felt most undermined instruction and academic success. Through these interviews, Downey (2015) discovered these teens shared the frustration of the school's reluctance to hold students accountable regarding deadlines. With the use of academic intensive care units and no-zero grading policies, the teacher must accept late assignments (Hill & Nave, 2014). The students in Downey's (2015) study found it frustrating when they worked hard to meet

strict deadlines only to hear the teacher tell students who had not met the deadline that it is okay, get it completed, and turn it in tomorrow. Downey (2015) suggested lax deadlines send the wrong message to both the students who ignore them and those who respect them.

Tallent (2016) stressed the implementation of no-zero grading does not help students learn to succeed as adults, but rather the system allows excuses for bad habits to occur. Implementing grading practices that prepare students ready for the real world is akin to the rhetoric of corporal punishment (Reeves et al., 2017). College professors consistently and frequently complain that their students begin the first year of college with the expectation of receiving the same grading practices and homework policies they were familiar with in secondary schooling (Tallent, 2016). Tallent (2016) continued to argue students are not properly prepared for the workforce regarding deadlines, stressing journalists must meet definite deadlines with strong work submitted.

Another argument in opposition to academic intensive care units and no-zero grading policies is the system encourages grade inflation (Tallent, 2016). Some no-zero grading policies require teachers not to allow any student to receive a grade below 50% on any assignment, quiz, or test; if students do not complete the assignment, instead of a zero grade, a 50% is entered in as a final grade (Caneva, 2014). This practice opens up an entirely new string of issues when teachers issue grades for assignments that were not completed or students simply earn a degree for showing up (Caneva, 2014). Others argue by artificially boosting student grades, schools are masking failure and pushing students through who do not know the material needed to actually succeed (Balingit & St. George, 2016).

Opposition arises from teachers as well (Bolger, 2013). Bolger (2013) explained that teachers protest because of concern regarding their professional judgment when determining whether students understand and grasp material or those students who are struggling. Bolger (2013) explained teachers cannot accurately decipher where their students' comprehension and academic levels truly fall when the students are not completing assigned work and are not being held accountable to do so. Furthermore, this makes it harder for teachers to implement interventions and promote academic successes (Bolger, 2013). There are accounts of teachers being fired for refusing to implement no-zero grading policies that were in place in their districts (Bell, 2016). The Alberta Court of Appeal in Canada upheld a decision that found a School Board had unjustly terminated a teacher due to this issue (Bell, 2016). Through Bell's (2016) case study, she found "the Court of Appeals decision enhances support for teachers who exercise their professional judgment when choosing methods of assessment and teaching, even when their opinions and beliefs on educational strategies conflict with those of their superiors" (p. 235).

Teachers report they are losing a sense of their true identity in the educational setting when forced to comply with demands and policies that take away their professional judgments in the classroom regarding grading (Yesbeck, 2011). The public and the state put many demands upon educational institutions (Yesbeck, 2011). These demands cause grading practices to be carefully scrutinized and cause teachers to switch to grading practices adapted to mirror accountability testing and performance-based assessments (Yesbeck, 2011).

A troubling argument against these policies claims no-zero grading policies and academic intensive care units cause students who once worked hard to pass classes by

attending tutoring, interventions, and seeking additional practice are beginning to opt-out of these supports and services (Caneva, 2014). When schools implement these programs and policies, students believe they do not have to work hard and can miss deadlines, receive unearned points, and still graduate and become successful in post-secondary schooling (Caneva, 2014). Teachers need to train students to create high-quality work on the first attempt and not allow them to continuously redo assignments or turn them in late because the latter practice does not prepare them for post-secondary school or the workforce (Tallent, 2016).

Responsibility must be mentioned when discussing academic intensive care units and no-zero grading policies (Hill & Nave, 2009). Too many students are missing out on the learned traits of responsibility and accountability (Hill, 2014). Teachers and schools must take responsibility and be held accountable for student motivation by implementing after-school programs, Saturday school, and other programs or activities intended to demand students become accountable for themselves (Guskey, 2006). In opposition to Guskey's recommendation is the belief that each student must be held accountable for his or her own actions and behaviors, especially concerning the completion of assignments (Bolger, 2013).

No-zero grading and academic intensive care units cause a false sense of ability to students and outsiders (Caneva, 2014). Allowing students to receive a D in coursework, which would be an F in schools that do not participate in no-zero grading, gives a false sense of where students truly rank statistically and academically; thus, creating a setting where these students are starting their college careers with incorrect notions as to where they truly fall with academics (Caneva, 2014). This false sense of rank in academics can

easily set a student up for failure in post-secondary school (Caneva, 2014). Shapira (2006) described numerous students who received passing grades in their high school math and English courses, but these same students failed to pass the state proficiency assessments. Warson (2013) discussed how validity, lack of grading schemas of educators, and subsequent communication of those grades to students, consequently leads toward grades being improperly reported and recorded.

Another argument against the use of academic intensive care units and no-zero grading is teacher evaluations being tied to data (Bolger, 2013). According to Wright (2017), research backs the practice of tying student achievement to teacher evaluations because student learning was improved. However, this practice caused concern for teachers due to the many contributing factors and a multitude of variables that impact student achievement (Wright, 2017). One major concern voiced by teachers was that their evaluations were tied to high-stakes testing in state standardized tests (Wright, 2017). For instance, Strauss (2015) described how teachers are being marked down on evaluations for poor test scores in subjects they do not teach, and students they do not teach. In essence, this sets teachers up to be expected to achieve goals that are entirely out of their control (Strauss, 2015). Assessment experts claimed linking student test scores to teacher evaluations is a solid form of teacher evaluation; however, school reformers as well as the education officials in the Obama administration argued just the opposite, linking student test scores to teacher evaluations is bad practice (Strauss, 2015). According to Strauss (2015), student test data are not reliable nor valid to measure student achievement.

Summary

The focus of the literature review was on the concept of no-zero grading (Hill & Nave, 2009; O'Connor's 2009), the concept of academic intensive care units (Hill & Nave, 2009), and topics related to the implementation of no-zero grading and academic intensive care units. The chapter opened with an overarching description of this study, followed by a discussion of the Conceptual Framework. The remainder of the literature review was divided into five sections: Homework and Achievement, Incomplete and Missing Assignments, Concept Behind Academic Intensive Care Units, Benefits of Academic Intensive Care Units and No-Zero Grading, and Opposition to Academic Intensive Care Units and No-Zero Grading.

In the upcoming chapter, the methodology used in the study was discussed in detail. The research questions were presented, and hypotheses were addressed. Also, the population and sample size of the study and how and why they were selected for the study were discussed in Chapter Three. The instruments chosen were presented and discussed in Chapter Three as well, with an explanation of the reasoning behind those choices. The data collection methods and procedures, as well as the data analysis, were also discussed. The ethical considerations for the study were addressed in Chapter Three.

Chapter Three: Methodology

The methodology of the study is discussed in Chapter Three. The purpose of the study and the research questions are listed. An explanation of implementing a mixed-methods design is provided. The population and sample are discussed and defined. The instrumentation, along with the reliability and validity of the instrumentation, is explained. Precise and expansive descriptions of the data collection and analysis processes are addressed. Finally, the ethical considerations of this study are presented.

Problem and Purpose Overview

The problem addressed in this study was how to increase student achievement through the completion of effective assignments and homework by implementing academic intensive care units and no-zero grading policies. The purpose of this study was to determine if academic intensive care units along with no-zero grading policies at the high school level result in students having higher achievement levels on state standardized testing such as EOC assessments.

Research Questions and Hypotheses

The following research questions and hypotheses guided the study:

1. What is the difference between the perceptions of high school students who believe intensive care units are beneficial for students when compared to high school teachers who believe intensive care units are beneficial for students?

   $H1_0$: There is not a significant difference between the perceptions of high school students who believe academic intensive care units are beneficial for students when compared to high school teachers who believe academic intensive care units are beneficial for students.

$H1_a$: There is a significant difference between the perceptions of high school students who believe academic intensive care units are beneficial for students when compared to high school teachers who believe academic intensive care units are beneficial for students.

2. What benefits do high school students and high school teachers identify with the academic intensive care units no-zero grading program?

3. What challenges do high school students and educators identify with the academic intensive care units no-zero grading program?

4. What is the difference between student achievement scores on state EOC assessments at High School A compared to High School B?

$H4_0$: There is not a significant difference between student achievement scores on state EOC assessments at High School A compared to High School B.

$H4_a$: There is a significant difference between student achievement scores on state EOC assessments at High School A compared to High School B.

5. What is the academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program?

$H5_0$: There is no academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program.

$H5_a$: There is an academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program.

Research Design

The methodology determined as the best fit for this study is an explanatory sequential mixed-methods approach. Creswell (2018) stated mixed-methods research involves the analysis of both quantitative and qualitative data in response to research questions. Subedi (2016) described the explanatory sequential mixed-methods approach as beginning with a broad survey to generalize the results of a population and then focusing on qualitative, open-ended questions to collect detailed views from participants to help explain participants' perceptions. Quantitative survey data and qualitative interview data were collected and analyzed for this study. Wipulanusat et al. (2020) explained analysis of both forms of data should occur, and procedures for both qualitative and quantitative data should be conducted rigorously. As suggested by Creswell (2018), mixed-methods use the integration of the two types of data in the design analysis by merging, connecting, and embedding data throughout the study.

The reason for collecting both quantitative and qualitative data was to look for statistical differences among students who experienced academic intensive care units and those who did not. Additionally, both types of data were selected to gain student and educator perceptual data to further explain the quantitative results. This design allowed for a collection of patterns and trends to determine if they were contributing factors for late or missing assignments.

Population and Sample

For this study, participants were gathered from two separate educational institutions resulting in two separate populations. The first population, High School A,

implements no-zero grading and academic intensive care units. The second population, High School B, does not implement no-zero grading and academic intensive care units.

The first population consisted of students and educators from High School A. Fraenkel et al. (2019) determined, “When an entire population is surveyed, it is called a census” (p. 392). From High School A, the entire student population consisting of freshmen through seniors was determined to be appropriate. A census survey was sent out to the student population. This population consisted of a total of 1,420 students made up of 390 freshmen, 379 sophomores, 317 juniors, and 334 seniors.

From this population, 12 students were randomly selected to participate in an interview. This was a stratified sample consisting of three performance strata: low achieving, average achieving, and high achieving students. Fraenkel et al. (2019) defined this method in this way, “Stratified random sampling is a process in which certain subgroups, or strata, are selected for the sample in the same proportion as they exist in the population” (p. 95). The counselors at High School A assisted in sorting the students into the three strata. From these strata, the 12 students were randomly selected for interviews. According to Fraenkel et al. (2019), “The advantage of stratified random sampling is that it increases the likelihood of representativeness” (p. 95). There were four students interviewed per each of the three strata. By maintaining a stratified random sample, the sample will reflect a true proportion in the population of individuals with certain characteristics (Creswell, 2014).

Similarly, for the educator subgroup, all 82 educators from High School A were selected as the population to participate in the study. A census survey was sent out to all 82 educators. The participating educators were volunteers for this study as they choose

whether or not they wanted to participate in the completion of the survey. Of the 82 educators, three teachers were needed to participate in an interview. As with the student interviewees, the teachers were also randomly selected. The counselors also assisted in organizing the teachers into groups based on the types of courses they teach: low level, grade level, and advanced classes. From those categories, one teacher from each level was randomly selected to participate in an interview.

For High School B, it was also deemed necessary to use all students and educators for the population. Again, the entire student population consisting of freshmen through seniors was determined to be appropriate. A census survey was sent to all students. This population consisted of a total of 1,163 students made up of 336 freshmen, 287 sophomores, 283 juniors, and 257 seniors. As with High School A, from High School B, 12 students from the same strata sets as High School A were randomly selected to interview.

Similarly, for the educator subgroup, all 79 educators from High School B were selected as the population to participate in the study. A census survey was sent out to all 79 educators. The participating teachers volunteered for this study as they choose whether or not they wanted to participate in the completion of the survey. Of the 79 educators, three were needed to participate in an interview. As with the student interviewees, the teachers were also randomly selected. The counselors assisted in organizing the teachers in groups based on the types of courses they teach as low level, grade level, and advanced level classes. One teacher from each level was randomly selected to participate in the interview.

Instrumentation

The instrumentation of this study consisted of surveys (see Appendices A–C), interviews (see Appendices D–G), and archival data. State EOC assessment scores are publicly housed on the Missouri Department of Elementary and Secondary Education's (MODESE) website under school report cards (MODESE, 2020b). The MODESE (2020b) gathered these data for accountability purposes. These archival data which were collected were EOC assessment scores from the 2016–2017, 2017–2018, and 2018–2019 school years. These data were retrieved for both High School A and B. Surveys and interview questions were created for students and teachers at High School A and B based on the guidelines and suggestions put forth by Creswell (2014) and Fraenkel et al. (2019). The ideas of Hill and Nave (2009) concerning academic intensive care units and no-zero grades informed the creation of the interview and survey questions.

Since the survey and interview questions were original, the questions were piloted, field-tested, and revised as needed. To ensure the fidelity of the survey questions, the questions were piloted by educators in districts other than the study populations. Feedback and critique of the original questions were received, and revisions were made based on the feedback received. All efforts were made to ensure all questions were clear and concise before administering them to the participants. The survey and interview questions for students were also piloted by recently graduated students from both High School A and B, and revisions were made as needed. Further revision of the interview questions was made based on the analysis of the archival and survey data.

Reliability

The survey and interview questions were administered to a pilot group on two separate occasions under the same conditions. Reliability is concerned with the consistency of measurement, meaning the questions elicit the same type of information each time the survey is used under the same circumstances (Mora, 2011). The results yielded were the same each time. The archival data came directly from a government website, the MODESE, and therefore, was viewed as reliable.

Validity

The survey and interview questions were valid. According to Creswell (2018), there are three forms of traditional validity: content validity, predictive or concurrent validity, and construct validity. These questions corresponded with the three traditional forms of validity because the questions measured the content intended to be measured, pilot scores predicted criterion measures and correlated with other results, and items measure hypothetical constructs or concepts (Creswell, 2018). It was also recommended to have expert reviews of survey and interview questions (Patel, 2019). The survey and interview questions were reviewed by educators before being implemented in the study. The archival data came directly from a government website, MODESE, and therefore, was viewed as valid.

Data Collection

The data collection for this study was divided into three parts: the archival data from High School A and High School B, electronic surveys of students and educators in High School A and High School B, and video conferences or phone meetings for

interviews were administered to students and teachers from High School A and High School B.

To begin this study, the primary investigator first requested site permission (see Appendices H–I) from both schools and received Lindenwood IRB approval for the study. These are the data collection steps upon university approval:

- Paper copies consisting of a description of the study, along with parent consent forms and student assent forms were dispersed to participants (see Appendices J–P).
- Adult consent forms will be sent to teachers and to students who are 18 or more years of age (see Appendices Q).
- Data were collected from the 2016–2017, 2017–2018, and 2018–2019 school years from the Missouri Department of Elementary and Secondary Education's (MODESE) school report cards housed on the MODESE website. The data collected from MODESE consisted of student achievement on the EOC assessments.
- After allowing two weeks to receive returned consent forms, surveys were administered to students and educators online through Qualtrics. Teachers and students were given a week a complete the survey.
- While waiting for surveys to be returned, school counselors randomly selected three teachers and 12 students to be interviewed. This process ran concurrently at both schools participating in the study.
- After surveys were collected and analyzed, teacher and student interviews were revised as needed and interviews also took place. Two days were spent

conducting interviews via Zoom or phone meetings. Interviews took place in private rooms to provide privacy during the interview process.

Data Analysis

During the first quantitative phase of the study, survey data were collected from both students and teachers at High School A and B. Also, archived quantitative assessment data were collected from High School A and B. These data were organized and analyzed using independent *t*-tests to answer research questions one through three.

The second qualitative phase of the study relied on results of the quantitative survey responses and categorizing and coding of the interview responses to identify common threads. According to Fink (2006), "Once you have all the responses, the next step is to categorize and code them" (p. 15). Common responses are grouped and assigned a code (Fink, 2006). Codes were ranked in order of the number of participant responses, and a cumulative percentage of responses was calculated for quantitative, descriptive analyses (Fink, 2006). These data were used to address all of the research questions depending on the participants' responses.

Ethical Considerations

It was of utmost importance to maintain confidentiality and to ensure anonymity throughout the study. Before any surveys and interviews were conducted, permission to conduct research was obtained from each district's superintendent, and an explanation of the study and appropriate consent forms were provided to all research participants at both educational institutions. Each consent form described in detail the purpose of the research, any possible risks, and provided a line where participants could choose to opt-out of the study any time without any negative effects.

Surveys were administered electronically with no identifying information collected. Data codes were implemented on the surveys to lessen the possibility of identifying participants. Interviews were conducted and recorded in a private setting. Interview participants were provided a pseudonym and to ensure anonymity in the discussion of interview data. To further ensure the anonymity of participants, pseudonyms were assigned to the educational institutions in the study as well.

Once the transcription was completed of both student and teacher interviews, the primary investigator presented the transcript to each participant. This allowed the interview participants to review the transcript and provide them with an opportunity to ask any questions or provide additional comments before the transcription was completely finalized. Additionally, the interview sample size was relatively small. Participants were also advised due to the above-mentioned factor, there is a possibility one's comments may be recognized even with modifications and approximations in place for the study.

Upon receiving survey submissions and completing interviews, all data, recordings, and documents will remain secured and locked in a file cabinet under the supervision of the primary investigator. The electronic submissions from the surveys are stored and saved in an electronic file on the primary investigator's personal computer. Both the personal computer and the file are password protected and stored on a secured site. The interview responses have been transcribed by the primary investigator and saved in the same password-protected file as the survey responses. Upon completion of the study, the files and documents from the research project will be securely destroyed after properly storing them for three years.

Summary

In summary, the problem and purpose of the study was discussed in Chapter Three. Additionally, the research questions and hypotheses were presented. The methodology for the research design was explained in detail. The population and sample size for the study were defined and described. The instrumentation of surveys, interviews, and archival data were discussed along with reliability and validity. The data collection and analysis processes were defined and discussed as well. Finally, all ethical considerations for the study were listed and described while also discussing safeguards put in place.

Chapter Four: Analysis of Data

The problem addressed in this study was how to increase student achievement through the completion of effective high-quality assignments and homework. The purpose of this study was to examine the impact on student achievement through the implementation of the academic intensive care unit and utilization of no-zero grading policies which were developed by Hill and Nave (2009). More specifically, the purpose was to determine if academic intensive care units along with no-zero grading policies at the high school level result in students having higher achievement levels on state standardized testing such as EOC assessments. In addition to looking at student achievement with academic intensive care units, student and teacher perceptions of academic intensive care units were analyzed for this study.

The data for this study were presented in different ways dependent upon the type of data collected. Data were collected and analyzed from archival data, surveys from students and teachers, and student and teacher interviews. The purposes of the surveys and interview were to gain more in-depth data pertaining to student and teacher perceptions of academic intensive care units and no-zero grading. The results of these data were presented in this chapter.

The first data discussed in this chapter was student and teacher survey results. The surveys were administered to different groups: students at High School A and High School B as well as teachers from High School A and High School B. Surveys were sent out as a census to all students and teachers at both locations electronically. These surveys allowed for the primary investigator to gain both teacher and student perceptions about academic intensive care units. These data contained both qualitative and quantitative

data. The qualitative data were coded to allow for the data to be analyzed from a quantitative point.

The second set of data results which were discussed in this chapter were student and teacher interviews from both High School A and High School B. This allowed for a deeper understanding of student and teacher perceptions of academic intensive care units. The student interviews were broken down into three groups at each school: students performing below grade level, students at grade level, and students above grade level. Teacher interviews consisted of one teacher teaching at each of the following levels: below grade level, on grade level, and advanced courses.

The last type of data which were analyzed was archival data. The archival data were public data which was available on the MODESE website. This type of data provided concrete quantitative results of student achievement from both high schools in the study. Tables and graphs were included in this chapter when discussing the results of the data.

Student Surveys

The student survey was administered to students who returned signed parental consent and student assent forms to participate in the survey. A census letter was sent out to all parents and students at both schools requesting participation in the survey. The first surveys were sent to High School A for student completion. This survey link was sent via school email address from advisory teachers to the students who consented to take the survey. The six-question survey was completed by a total of 12 students at High School A. An additional survey was sent to High School B participants, where 16 students agreed to participate in the survey.

When analyzing the survey results, there were some common trends between the two schools. When addressing Question 2, “Do you feel that the ICU program is beneficial to students?,” the majority, consisted of 62.50% of students at High School B answered *yes* while only 23.53% of High School A students responded with a *yes*. The second part of Question 2 asked, “Why do you feel ICU is either beneficial or not beneficial for students?” This question allowed the determination of why students selected the ICU program to be of benefit or having no benefit to students. Perceptions varied slightly, but overall shared common ideas on the benefits of academic intensive care units did appear. On the other hand, student perceptions regarding non-benefits varied more. Table 1 and Table 2 summarize the objective results of the above survey question.

When looking at student perceptions on the benefits of the academic intensive care unit students at both schools saw common benefits of the program. In fact, between the two schools, students only addressed five different benefits they saw within the academic intensive care unit. The most commonly perceived benefit of students who participated in an academic intensive care unit at their school was students have an opportunity to complete their assignments inside of school. The perception of students growing academically by participating in academic intensive care units was the second highest student perception. However, no students from High School A, which does implement academic intensive care units, did not perceive student growth as a benefit.

Table 1

Student Perceptions on the Benefits of ICU Programs

Benefits	High School A Students	High School B Students
Helps students grow	0	38
Unique to needs	0	6
Gets assignments completed	33	19
Motivates students	8	6
Holds students responsible	8	6

Note. These data are represented by percentage.

When looking at the student perceptions on the non-benefits of academic intensive care units, no students from the two separate schools shared the same perceptions. Students at High School A saw multiple non-benefits of implementing an academic intensive care unit. Students at High School B only identified two non-benefits of implementing academic intensive care units.

Table 2

Student Perceptions on the Non-Benefits of ICU Programs

Non-Benefits	High School A Students	High School B Students
Students should complete work in class	0	6
Students miss out on fun things at school	0	13
Teachers not flexible	8	0
Does not prepare for college	8	0
Students not accountable	33	0
Lack of student discipline	8	0

Note. These data are represented by percentage.

Question 4 on the survey was, "Do you feel students do/would take advantage of having an ICU program implemented within your school?" Students at both schools interpreted taking advantage of in a negative aspect. Additionally, a majority of students in both schools felt as if students would take advantage of an academic intensive care unit being implemented within their school. Figure 1 summarizes the data for the two schools' responses for Question 4.

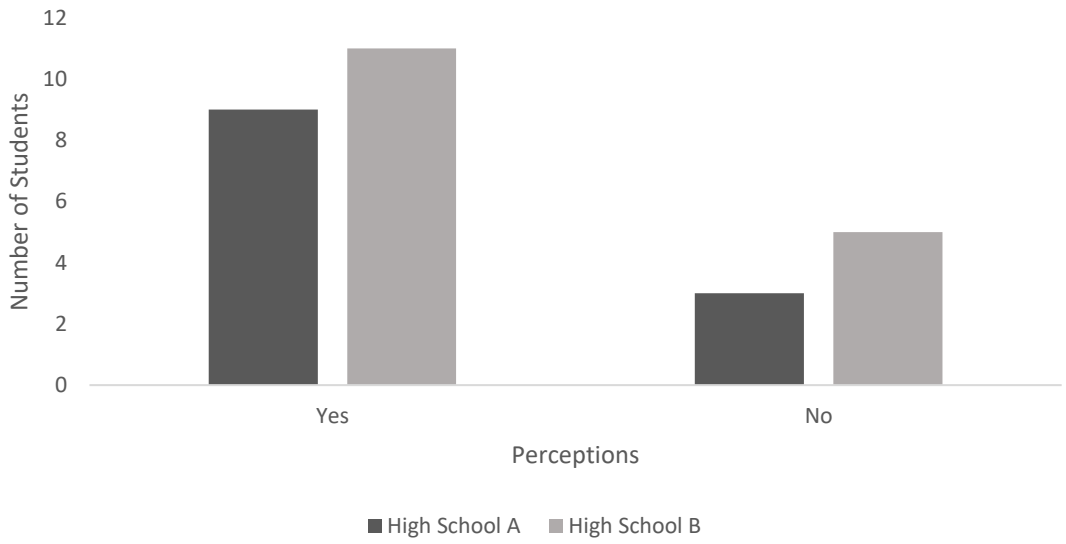
Of the 12 students surveyed at High School A, nine selected students would take advantage of their school implementing an academic intensive care unit. This attributed to 75% of the students surveyed. The standard deviation for High School A was 0.43 creating a variance of 0.19. Thus, meaning most of the data points were close to the mean which allotted for less variance in the data points. High School B students were very similar in their perceptions of students taking advantage of an academic intensive care

unit at their school as well. Eleven of the 16 students surveyed indicated they felt students would take advantage of an academic intensive care unit being implemented at their school. This accounted for 68.75% of the students surveyed. The standard deviation was 0.46 with a variance of 0.21.

By reviewing the data on students' perceptions on students taking advantage of academic intensive care units being implemented within High School A and High School B, no meaningful differences were discovered. Additionally, a paired two-tailed *t*-test was conducted yielding to an obtained score of 0.683 between the two schools' data points. This *t*-score showed no statistical significance for the study.

Figure 1

Student Perceptions Regarding Students Taking Advantage of ICU Programs at School



When looking at the qualitative data pertaining to student perceptions of students taking advantage of an academic intensive care unit being implemented at their school, common reasoning was found between the two schools. Student responses for why they believed students would or would not take advantage of an academic intensive care unit

were consistent between the two schools. The results of the objective question were shown in Table 3.

When looking at the data in regards to why students feel academic intensive care units will be taken advantage of at their school, both schools had common perceptions aside from two categories. The first category with no common perceptions was academic intensive care units keep students in check with consequences. Only two students at High School A believed this while zero at High School B shared this perception. The other category with no common perception between the two schools was academic intensive care units improve grades. Zero students from High School A had this belief while six students from High School B did indicate this as a reason for taking advantage of an academic intensive care unit.

Table 3

Student Perceptions as to why Students Would Take Advantage of ICU Programs

Reasons for Taking Advantage	High School A Students	High School B Students
Keeps students in check with consequences	2	0
Allows several chances to complete work	2	2
Disregards due dates/easy out for students	7	4
Students not wanting to participate	1	4
Improves grades	0	6

Note. Responses are denoted by actual total responses, not percentages.

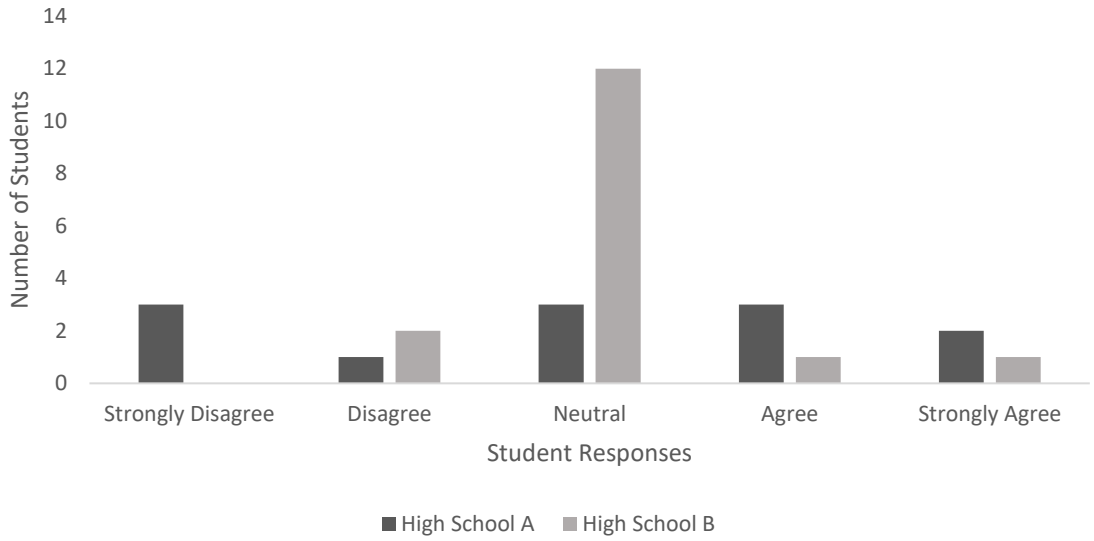
Question 6 on the student survey asked, “On a scale of 1–5, 5 as the highest, do you feel students do/will use an ICU program for the correct educational purposes?” Student responses to this question did not indicate a definite student perception as to whether a majority of students felt students would or would not use an academic intensive care unit for the correct educational purposes. Figure 2 showed the student responses to the above question.

High School A students were almost evenly divided between the five category choices. On the other hand, a majority of High School B students had a neutral disposition when selecting if students would use an academic intensive care unit for the correct educational purposes. When looking at the data for High School A students, there was a standard deviation of 1.41 and a variance of 2.00. The standard deviation and variance were substantially different for High School B students. The standard deviation was 0.66 while the variance was 0.43 and thus the null hypothesis is not rejected.

When comparing the data directly between the two schools, High School A has a high standard deviation which in turn means the data points are much more varied than with High School B. When running a paired, two-tailed *t*-test, a result of 0.740 was obtained between the data of the two schools. This *t*-score shows no statistical significance for the study.

Figure 2

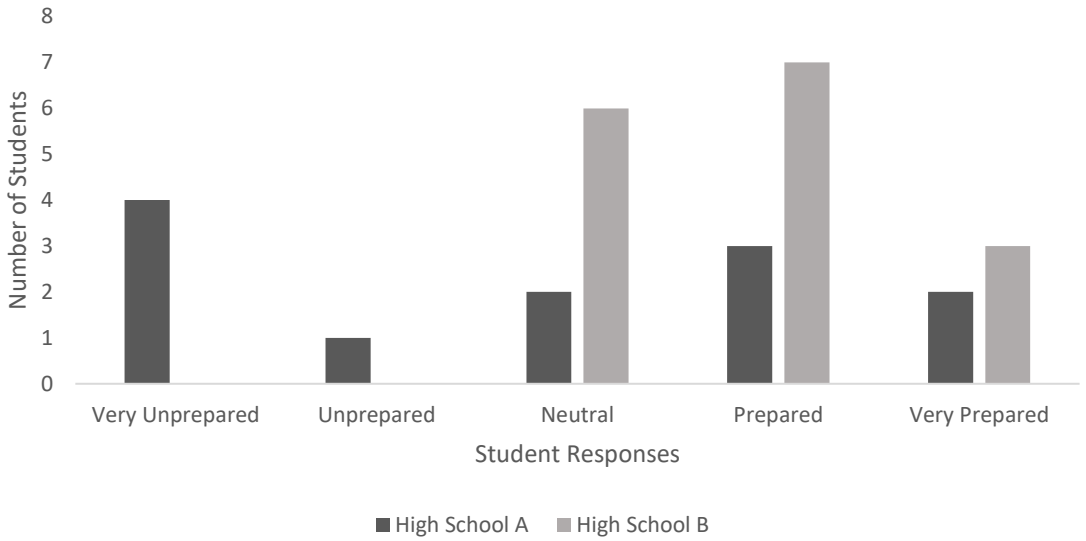
Student Perceptions in Regards to Students Using ICU Program for Correct Educational Purposes



Students at both schools were asked, “How well do you feel the ICU program properly prepares you for higher academic achievement on state EOC assessments?” Again, the data from the two schools were varied. Figure 3 was used to compile the student results from the above question.

Figure 3

Student Perceptions on an ICU Program and Student Achievement on EOC Assessments



The final question on the student survey asked students to indicate how prepared an academic intensive care unit prepares students to be successful in the classroom. The two schools had different student perceptions to this question. The data is summarized below in Figure 4.

The data from the above question showed the different perceptions of the students between the two schools. When breaking down the data into percentages, High School A did not have a significant difference in the number of students who believe academic intensive care units do *prepare* or *very prepare* students for higher academic achievement on EOC assessments and those who felt academic intensive care units leave students *unprepared/very unprepared* for higher academic achievement on EOC assessments. For High School A, 41.67% of students surveyed indicated the perception of academic intensive care units either *prepared* or *very prepared* students to have higher achievement on EOC assessments while 41.66% of students' surveys indicated academic intensive

care units either left students *unprepared* or *very unprepared* for higher achievement on EOC assessments. Additionally, 16.67% of students surveyed at High School indicated a *neutral* feeling on academic intensive care units properly preparing students for higher academic achievement on EOC assessments. The standard deviation for High School A was1.52 while the variance was 2.31.

High School B students indicated no perceptions of academic intensive care units leaving students *unprepared/very unprepared* for higher academic achievement on EOC assessments. Of the students surveyed at High School B, 62.50% of students indicated the belief academic intensive care units either *prepared* or *very prepared* students for higher academic achievement on EOC assessments. The remaining 37.50% of students took a *neutral* belief on academic intensive care units properly preparing students for higher academic achievement on EOC assessments. For High School B, the standard deviation was 0.73 with a variance of 0.53.

When directly comparing the data from the two schools, differences in the data spread were noted. High School A had a much higher standard deviation correlating to a wider variance in data points than with High School B. A paired, two-tailed *t*-test was conducted on the data obtaining a result of 0.628. This *t*-score indicated no statistical significance for the study.

The students surveyed at High School A were consistent across all five categories when indicating perceptions of an academic intensive care unit preparing students to be successful in the classroom. The data were evenly distributed for students believing academic intensive care units *prepared/very prepared* and *unprepared/very unprepared* them to be successful in the classroom. The percentage of students feeling academic

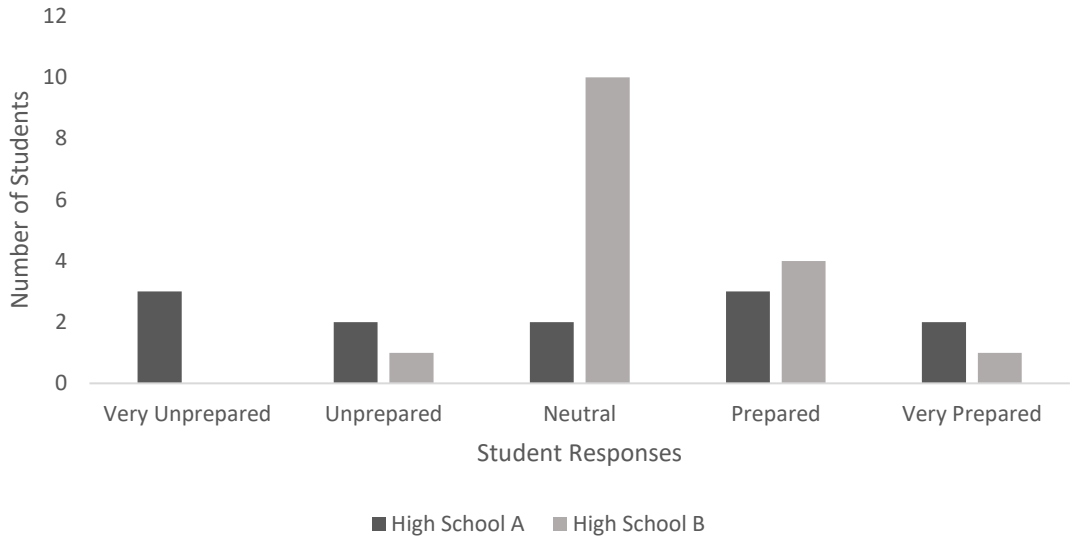
intensive care units either *prepared* or *very prepared* students to be successful in the classroom was 41.67%; this was the same for feeling either *unprepared* or *very unprepared*. Of the students surveyed, 16.67% indicated a *neutral* perception to academic intensive care units preparing students to be successful in the classroom. For High School A, the standard deviation was 1.44 while the variance was 2.08.

It was indicated through High School B students' data a majority of students surveyed believed academic intensive care units *neither prepare/very prepare* nor *unprepared/very unprepared* students to be successful in the classroom. Of the students surveyed, 62.50% indicated a *neutral* feeling to how prepared academic intensive care units help students be successful in the classroom. Additionally, only 6.25% indicated feeling academic intensive care units do not prepare students to be successful in the classroom. The remaining 26.25% of students indicated feeling academic intensive care units properly prepare students to be successful in the classroom. There was a standard deviation of 0.68 and a variance of 0.46.

Again, when directly comparing the two schools' data, High School A had a much higher standard deviation and variance than High School B. When using a paired, two-tailed *t*-test, a result of 0.686 was obtained. This *t*-score indicated no statistical significance for the study.

Figure 4

Student Perceptions Regarding the ICU Program Preparing Students to be Successful in the Classroom



Student Interviews

Student interviews were conducted on-site at both High School A and High School B. These interviews occurred on two separate days over a two-week time period at each school. A summary of the student responses as well as some direct quotes were provided below. These objective responses helped add to the qualitative data of the study.

High School A

Question 1: What is your current overall GPA? The GPAs for all students interviewed ranged from 1.7 to 3.6 on a 4.0 scale. There was one student who did know their GPA or how to locate their GPA. By asking the GPA, the primary investigator was able to confirm data was being collected from students with different achievement levels. There were 12 students interviewed in grades nine through 12. Three students per grade

level participated in the interview. Of the three students interviewed per grade level, there was one student per achievement level.

Question 2: Do you submit late work? Of the 12 students interviewed, all 12 admitted to submitting late work. Four students confessed to have a large quantity of missing assignments. Others stated they only have late assignments on an as needed basis depending on what assignments need their main focus and the workload form their other courses at that time. One student stated, "Of course I have multiple missing assignments in all my classes."

Question 3: If yes, what classes do you submit late work in? All four of the low-level students admitted to submitting late work in all classes. The on-grade level students claimed to mainly have missing assignments in math and English courses when big papers were due. The four above grade level students claimed to have very few missing assignments at the same time and what subject area of the missing assignments varied depending on the content and work load. One student responded, "I only have late assignments with big projects in English or my AP classes. I never have more than one missing assignment at a time."

Question 4: If yes, what are your reason for submitting late work? The students with the higher GPAs and who take above grade level courses provided similar reasons to having late work. One student stated:

> Sometimes the pressure of due dates from honors classes catches up with you along with being in sports and what not. I take advantage of having an extra day or two to submit my assignment with no penalty. I'd rather take the extra days than be docked points for not having time to do quality work.

The on-grade level and below grade level students also had similar responses to the question. One student stated:

> I mean why shouldn't I have late work? My school sets it up to allow me to turn my stuff in whenever, up to the end of the quarter with no late points. So, to me I can do my stuff whenever. It's always finished by the end of the quarter though when grades are due.

Question 5: If no, why do you not submit late work since there is not penalty for late work? None of the 12 students claimed to have no missing assignments.

Question 6: Does the implementation of ICU push you to try your best academically? Why or why not? Of the four low level students, only one believed the academic intensive care unit pushed them to try their best academically. Of the four on grade level students interviewed, two believed they are pushed harder to do their best academically. One student stated:

> To be honest without the ICU program I would probably fall further behind and not attempt to catch up and just fail my classes. But I am forced to go to ICU and to the lifeguard room to complete my work. I sometimes work harder so I don't have to go there.

All four of the high achieving students claimed academic intensive care units do not push them to try harder academically. One of the students responded:

> Absolutely not. I now have an out to get more time on my work. I push assignments aside and turn them in whenever. I still get full credit. I think I worked harder before we started ICU to be honest.

High School B

Question 1: What is your current overall GPA? The GPAs for all students interviewed ranged from 1.2 to 3.9 on a 4.0 scale. There were three students who did know their GPA and indicated they knew how to look it up, but they choose not to. By asking the GPA, the primary investigator was able to confirm data were being collected from students with different achievement levels. There were 12 students interviewed in grades nine through 12. Three students per grade level participated in the interview. Of the three students interviewed per grade level, there was one student per achievement level.

Question 2: Do you submit late work? Of the 12 students interviewed, seven students admitted to submitting late assignments. Three of the students who stated they never had any late assignments were the above grade level students. The other two students who stated never having late assignments were on grade level students.

Question 3: If yes, what classes do you submit late work in? The most predominant response to this question by the below grade level students was having missing assignments in all classes. One student stated, “Every class but PE only because we don’t have assignments from Coach.” The two on grade level students both said math and English were the only classes for which they consistently have missing work. The one above grade level student articulated having missing assignments in Chemistry.

Question 4: If yes, what are your reason for submitting late work? According to the above grade level student:

> I only have missing assignments in Chemistry because it is a struggle for me. I don't like to call attention to myself by asking for help, so I take the extra time to try harder on my assignments and turn them in late.

The predominant response from the at grade level students in regards to math was, "We have daily assignments in math. They're only worth two completion points. I'd rather focus on the classes where the assignments count for higher points and turn my math in later." The below grade level students suggested reasons lending towards student apathy, they've always had bad grades, or that they are so far behind they can't catch up anyway.

Question 5: If no, would you have more late assignments if there were no penalty of late work? Four of the five students claiming to never have missing assignments unanimously gave the same first response:

> I don't want my grades to suffer so I work hard to get my assignments completed on time already. So yeah, if there is not a penalty for late work then I would probably not work as hard to meet deadlines.

The remaining student stated, "I have always worked hard academically. I would still continue to work hard even if there were no late points."

Teacher Surveys

After reviewing and analyzing data from both student surveys and interviews, the process of reviewing and analyzing data in regards to teacher perceptions began. The first data on teacher perceptions to be analyzed were teacher surveys from both High School A and High School B teachers. The surveys allowed for quantitative and qualitative data to be obtained in relation to teacher perceptions on academic intensive care units.

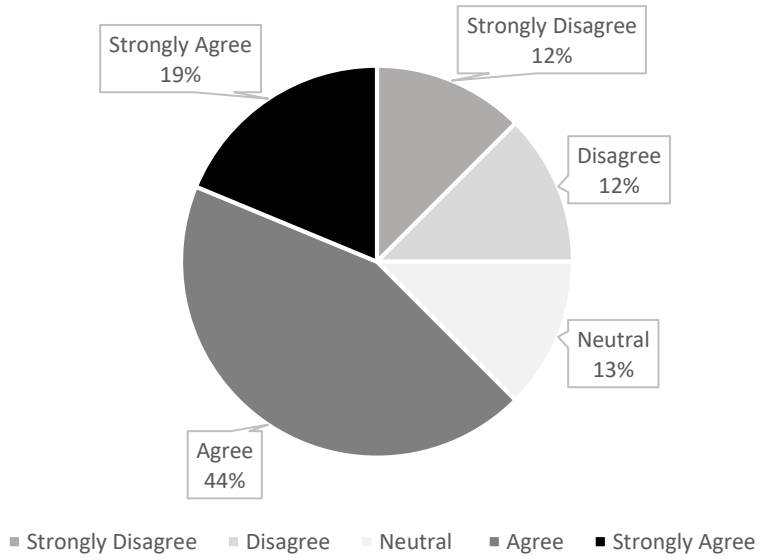
To begin the survey, High School A teachers were first asked if they thought the ICU program was beneficial to their students at the time of implementation. Of the 17 teachers surveyed, 23.53% found the academic intensive care program to be beneficial to students while 76.47% did not find the program to be beneficial. The standard deviation was 0.42 with a variance of 0.18, thus showing the data spread had little variance.

Since High School B does not implement an academic intensive care unit within their school, a similar question was posed to the teachers within the school. Teachers were asked to rate on a scale of 1 to 5, how they felt their students would benefit from an academic intensive care unit being implemented within their school. The results of this question were shown in Figure 5.

Upon reviewing the data collected from the 16 teachers who participated in the survey from High School B, a large variance in the data was discovered. The variance was recorded to be 1.62 with a standard deviation of 1.27 calculated. Through further review of the data, the primary investigator determined 62.50% of teachers at High School B agreed academic intensive care units would be beneficial for their students while only 24% of the teachers surveyed did not find any benefits of implementing an academic intensive care unit with in their school. The remaining 12.50% were neutral in their opinion of implementing academic intensive care units within their school.

Figure 5

High School B Teacher Perceptions on ICU Programs Benefitting Their Students



Upon retrieving qualitative data to support the quantitative data of the previous questions, teachers at High School A were asked, “Why do you feel the ICU program is or is not beneficial for students?” Teachers at High School B were asked a similar question, “What benefits do you see if your school were to implement an ICU program? The objective teacher responses to these two questions were listed in Tables 4 and 5.

Upon analyzing the objective data retrieved from the follow-up survey question to benefits and non-benefits of implementing an academic intensive care unit within a school, clear patterns were able to be deciphered. More teachers from High School B found benefits of implementing an academic intensive care unit within their school than teachers within High School A.

Table 4

Teacher Perceptions on Benefits for Students

Benefits	High School A Teachers	High School B Teachers
Helps struggling students	1	5
Provides extra supports	2	1
Students/Teachers know crucial curriculum	1	0
Separate from distractions	0	2
Reminds students to do work	0	3
Holds students accountable	0	2

Note. Responses are denoted by actual total responses, not percentages.

Paralleling this data, more teachers at High School A found more non-benefits of implementing an academic intensive care unit within their school than did teachers at High School B.

Table 5

Teacher Perceptions on Non-Benefits for Students

Non-Benefits	High School A	High School B
Does not prepare for college/workforce	3	0
Targeted student audience	2	0
More work on teachers	3	4
Creates bad habits with late work	6	0
Standards low in ICU	1	3
Inadequate interventions	1	2
Lost learning goals	2	3
No benefits seen at all	1	1
Negates personal responsibility/accountability	0	2
Student pushback	1	2

Note. Responses are denoted by actual total responses, not percentages.

The next quantitative question on the teacher surveys was, “Do you feel the ICU program properly prepares your students for higher academic achievement on state EOC assessments?” This was a simple yes or no response question. The data from the teachers surveyed at the two schools are listed below in Figure 6.

Upon analyzing the data, the primary investigator discovered the teachers at the two separate schools had rivaling perceptions on academic intensive care units properly preparing students for higher achievement on state EOC assessments. Of the teachers surveyed at High School A, 18.75% believed academic intensive care units properly prepare students for higher academic achievement on state EOC assessments. To the

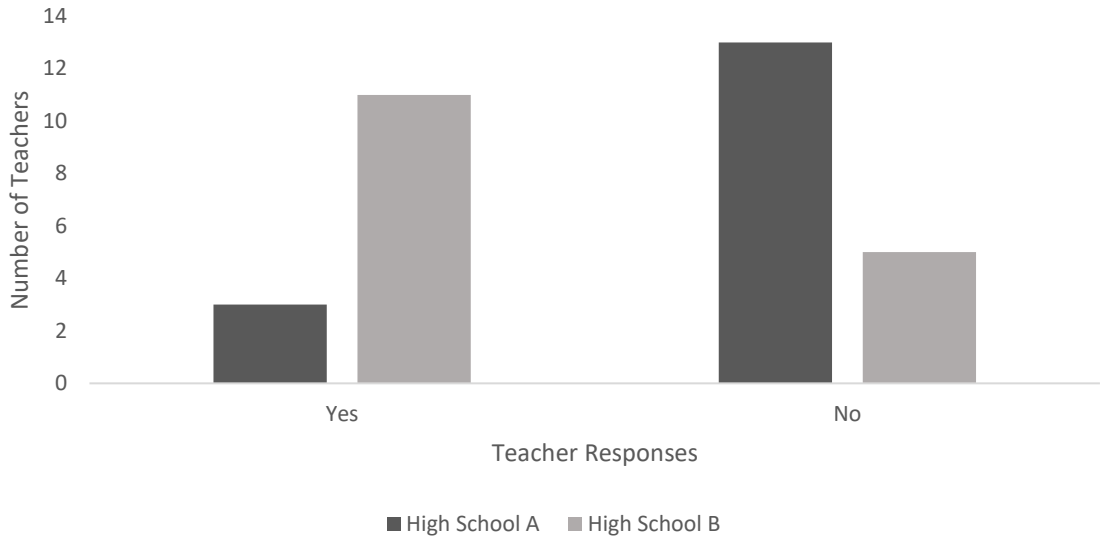
contrary, 81.25% of the teachers surveyed at High School A believe academic intensive care units do not properly prepare students for higher academic achievement on state EOC assessments. There was a standard deviation of 0.39 lending to a small variance of 0.15.

Through data analysis, the opposite was found to be true in regards to the teacher perceptions at High School B. Of the teachers surveyed at High School B, 68.75% of teachers indicated a belief of academic intensive care units properly preparing students for higher academic achievement on state EOC assessments. Secondly, 33.25% of those teachers felt students are not properly prepared for higher academic achievement on state EOC assessments by implementing academic intensive care units. There was a standard deviation of 0.16 with a low variance of 0.21.

When comparing the data from the two schools together, it was clear teachers at the two schools had opposite beliefs on academic intensive care units properly preparing students for higher academic achievement on state EOC assessments. High School A teachers predominantly had the perception of academic intensive care units not properly preparing their students while a vast consensus of High School B teachers believed students are properly prepared for higher academic achievement on state EOC assessments. The primary investigator ran a paired two-tailed *t*-test and a result of 1.00 was obtained. The *t*-score obtained indicated no statistical significance for the study.

Figure 6

Teachers Perceptions on ICU Programs Properly Preparing Students for Higher Academic Achievement on EOC Assessments



Teachers were then asked to explain why they believe academic intensive care units either do or do not properly prepare students for higher academic achievement on the state EOC assessment. This objective question provided the primary investigator with qualitative data to back up the quantitative data received from teachers' perceptions on academic intensive care units properly preparing students for higher academic achievement on state EOC assessments. The reasoning the teachers from both schools provided in regards to their beliefs to the above question are provided in Tables 6 and 7.

When analyzing the qualitative data from the follow-up question on the survey, the primary investigator was able to determine some trends within the teacher responses. When providing reasons as to why teachers believe academic intensive care units properly prepare students for higher academic achievement on EOC assessments, only three teachers from High School A indicated a belief in which students are forced to

complete all assignments, thus creating an environment to naturally learn content. The three teachers from High School A who provided reasoning behind academic intensive care units preparing for higher student achievement consisted of 18.75% of teachers surveyed at High School A. A majority of the teachers at High School B were able to provide reasoning for believing academic intensive care units properly prepare students for higher achievement on EOC assessments. There were a total of 14 teacher responses for supporting academic intensive care units lending towards higher student achievement. The different reasoning provided above accounted for 87.5% of High School B's teachers which were surveyed beliefs.

Table 6

Teacher Beliefs as to Why ICU Programs Properly Prepare Students for Higher Academic Achievement on EOC Assessments

Perceptions	High School A Teachers	High School B Teachers
Forces to complete assignments thus learning occurs	3	5
Corrects academic behaviors	0	1
Provides additional study time	0	3
Learn required material not just skip through content	0	3
Builds confidence	0	2

Note. Responses are denoted by actual total responses, not percentages.

Table 7

Teacher Beliefs as to why ICU Programs do not Properly Prepare Students for Higher Academic Achievement on EOC Assessments

Perceptions	High School A Teachers	High School B Teachers
Students rush through assignments/copy assignments	3	0
Students submit assignments extremely late	6	2
Elevates grades to graduate not prepare for EOCs	2	0
No focus on high achieving students	2	0

Note. Responses are denoted by actual total responses, not percentages.

The data collected on the objective responses from the teachers yielded opposite results when the responses for beliefs as to why academic intensive care units do not properly prepare students for higher achievement on state EOC assessments were analyzed. A predominant number of teachers surveyed at High School A provided reasons not supporting academic intensive care units properly preparing for higher achievement on EOC assessments. Thirteen of the 16 teachers provided qualitative data as to why students are not properly prepared for state EOC assessments through academic intensive care units. This constituted for 81.25% of the teachers surveyed. On the other hand, only two teachers from High School B provided responses suggesting as to why academic intensive care units do not properly prepare students for higher academic achievement on state EOC assessments. This represented 12.5% of the teachers surveyed at High School B.

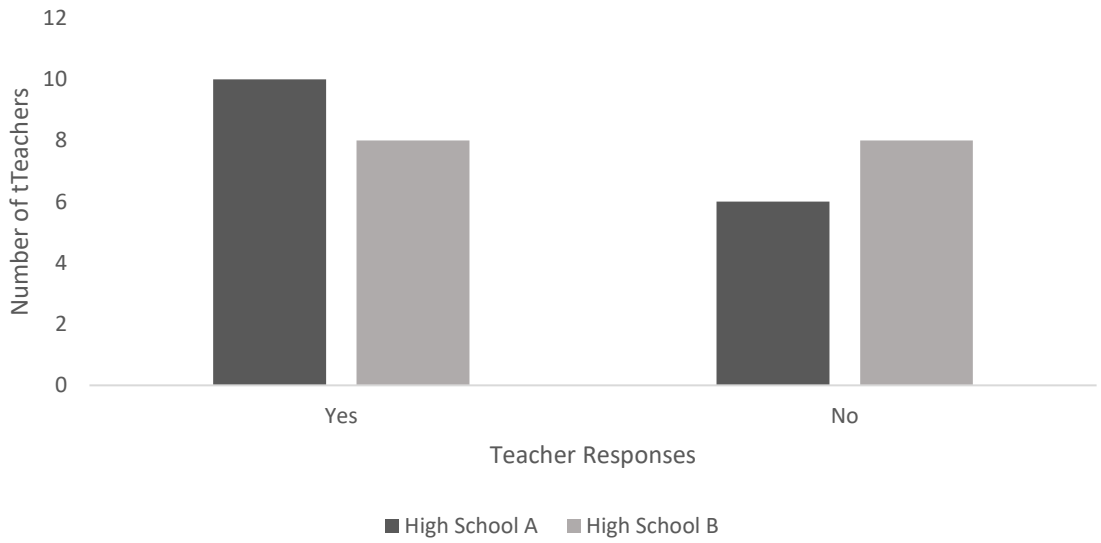
To allow for the primary investigator to collect more quantitative data from the teacher surveys, teachers from both schools were asked if they felt students either would or would not take advantage of having an ICU program implemented within their school. The results pertaining to this question are represented in Figure 7. A discussion of the data precedes the figure.

After analyzing the data to teacher responses regarding whether or not they believe students would or would not take advantage of having an ICU program implemented within their school, there were some distinctions within the data noted. When comparing High School A and High School B teacher responses, there was a slight difference. For High School A, there was a standard deviation of 0.48 with a variance of 0.23. This yielded to the responses being only slightly varied. For High School B, the standard deviation was 0.50 with a variance of 0.25. This represented a normal distribution of data since 50% of all the responses fell on each side of the mean. Additionally, this created a normal curve within the data.

A paired two-tailed *t*-test was implemented to directly compare the responses of the teachers at both schools. By doing so, a score of 1.00 was yielded as a result of the *t*-test between the two schools. Thus, meaning there was not a statistical significance between the responses of the teachers at High School A and High School B.

Figure 7

Teacher Perceptions Regarding Students Taking Advantage of an ICU Program within Their School



Teachers at both schools were asked to provide an objective response explaining why they felt students would or would not take advantage of having an academic intensive care unit in their school. These responses allowed the primary investigator to gather additional qualitative data for the study. The responses of the teachers were analyzed and recorded in Table 8.

When reviewing the responses from teachers at both High School A and High School B, teachers at both schools had the same five beliefs as to why students would or would not take advantage of an academic intensive care unit being implemented within their school. A majority of teachers at both schools had the highest common belief of students taking advantage of an academic intensive care unit because it provides students with an out to have late assignments. On the contrary, there were some discrepancies in regards to students taking advantage of an academic intensive care unit for positive

reasons. Only one teacher from High School A believed students would take advantage of the extra supports the program provides while five teachers from High School B had the same belief. The other responses were very close between the two schools yielding no significant differences.

Table 8

Teacher Beliefs as to why Students Would/Would not Take Advantage of an ICU Program

Perceptions	High School A Teachers	High School B Teachers
Gives students an out to have late assignments	7	5
No punishments for late assignments	2	1
Provides extra student supports	1	5
Students view program as a waste	3	2
Students are forced to participate	3	3

Note. Responses are denoted by actual total responses, not percentages.

To parallel the question previously asked, teachers were also asked to indicate on a scale of 1 to 5, 5 being the highest, how they felt students do/will use an ICU program for the correct educational purposes. This question provided additional quantitative data for the study. The results of the teachers' responses from both High School A and High School B were represented in Figure 8.

By analyzing the data of teacher perceptions pertaining to students utilizing an academic intensive care unit for the correct educational purposes some commonalities and differences were found. High School A had a standard deviation of 1.36 with a high

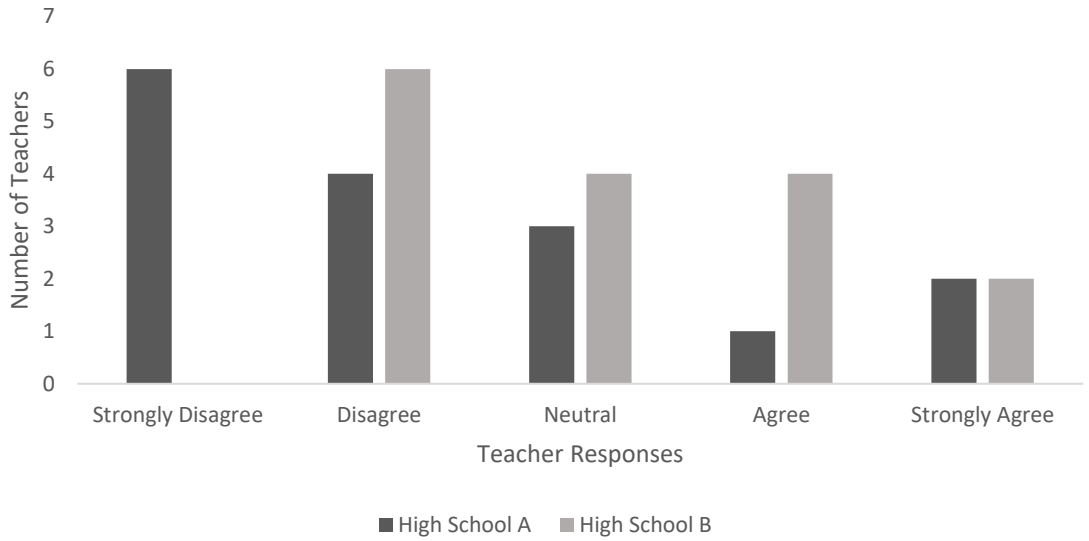
variance score of 1.84. More than half, 62.5%, of the teachers at High School A selected either *disagreeing* or *strongly disagreeing* that students utilized the academic intensive care unit for correct educational purposes within their school. Additionally, only 18.75% of teachers at High School A indicated *agreeing/strongly agreeing* that students using the academic intensive care unit at their school for correct educational purposes. The remaining18.75% of the teachers indicated a *neutral* response to the question.

High School B also had a higher standard deviation and variance than High School A. High School B's standard deviation was 1.05 with a variance of 1.11. On the contrary to High School A, only 37.5% of teachers at High School B indicated they believed that students at their school would not utilize an academic intensive care unit for correct educational purposes at their school. Of the teachers surveyed at High School B, 37.5% also indicated students would choose to utilize an academic intensive care unit for the correct educational purposes. The remaining 25% of teachers indicated a *neutral* response to the question.

When comparing the data of the two schools simultaneously, additional insights for the study were obtained. A paired two-tailed *t*-test was conducted. The *t*-score for this test was 1.0. This indicated there is no real statistical significance between the two schools' teachers' beliefs on students using academic intensive care units for the correct educational purposes.

Figure 8

Teacher Perceptions on Students Using ICU Programs for Correct Educational Purposes



The next question posed to teachers at both High School A and High School B requested teachers rate on a scale of 1 to 5, 5 being the highest, how well they felt the academic intensive care unit properly prepared students for higher achievement on EOC assessments. The question allowed for additional quantitative data to be analyzed for the study. The responses to the above question were epitomized in Figure 9.

When reviewing the data, the schools were first analyzed separately. High School A had more teachers indicate academic intensive care units left their students either *unprepared* or *very unprepared* to obtain higher achievement on EOC assessments. Ten of the 16 teachers surveyed accounted for this group calculating 62.5% of the teachers surveyed. Only one teacher of the 16 surveyed indicated academic intensive care units properly *prepared* students for higher academic achievement on EOC assessments. This constitutes 6.25% of the teachers surveyed. The remaining 31.25% had a *neutral* position

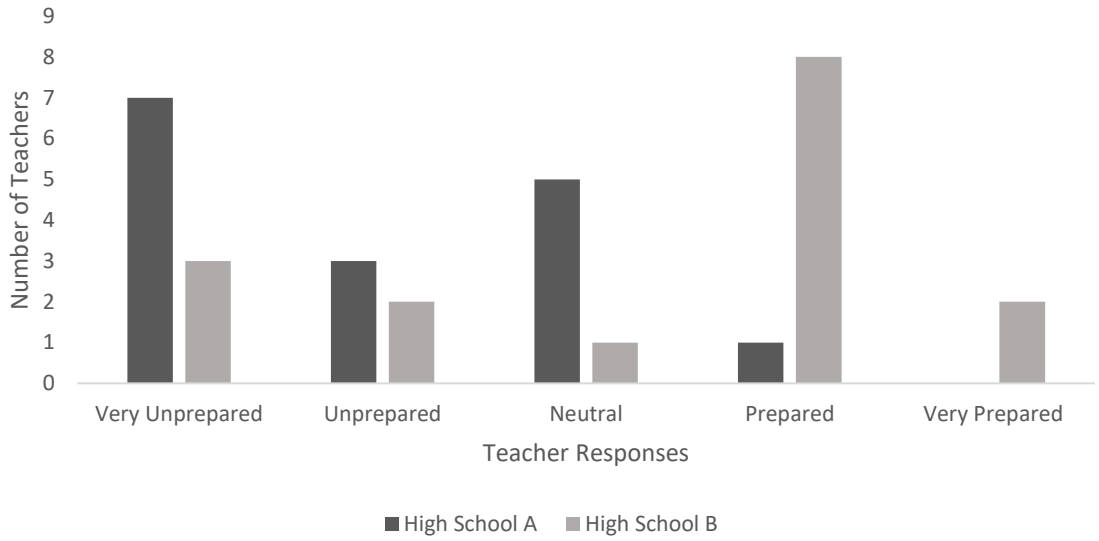
for the question. The standard deviation for High School A was 1.00 with a variance of 1.00. This indicated no real statistical significance of the data.

High School B had five teachers of the 16 surveyed indicate feeling implementing an academic intensive care unit within their school would leave students *unprepared* or *very unprepared* to obtain higher academic achievement on EOC assessments. This consisted of 31.25% of the teachers surveyed. Opposite of High School A, High School B had 10 teachers indicate by implementing an academic intensive care unit within their school would *prepare* or leave their students *very prepared* to obtain higher student achievement on EOC assessments. This belief was shared by 62.5% of the teachers at High School B. The remaining 6.25% of teachers held a *neutral* disposition to the question. High School B had a standard deviation of 1.35 and a variance of 1.81. This was higher than High School A.

The data of both schools was also analyzed together. A paired two-tailed *t*-test was implemented. The *t*-score obtained was 1.00. This *t*-score indicated there is no real statistical significance with the teacher responses from High School A and High School B.

Figure 9

Teacher Perceptions on ICU Programs Preparing Students for Higher Achievement on EOC Assessments



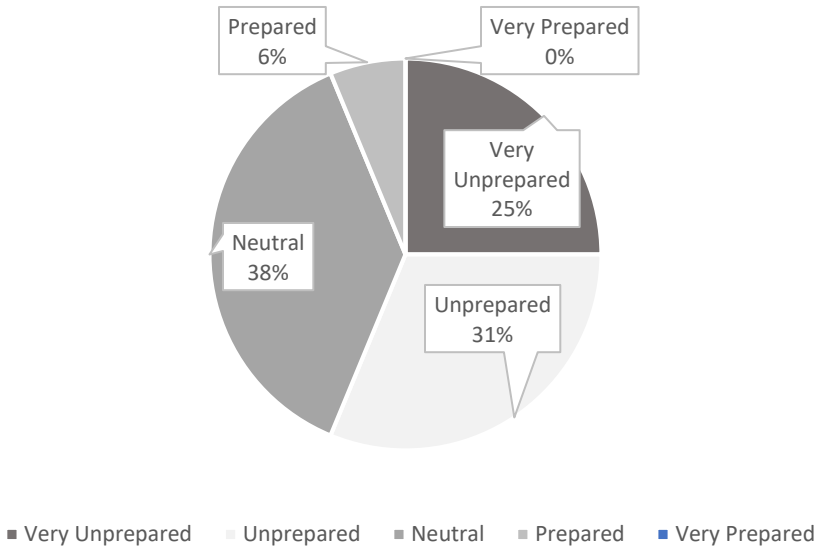
Teachers at High School A were asked an additional question which was not posed to High School B teachers. This question was, “On a scale of 1-5, 5 being the highest, how do you feel the ICU program properly prepared your students to be successful in the classroom?” This question was presented to High School A teachers and not High School B teachers because High School A does implement academic intensive care units. The results of this question allowed for additional quantitative data to be analyzed for the study. The responses to this survey question were denoted in Figure 10.

A visual representation of teacher responses is outlined in Figure 10. Over half, 56%, of the teachers at High School A indicated feeling the implementation of academic intensive care units within their school would leave students either *unprepared* or *very unprepared* to be successful in the classroom. Only 6% of teachers selected feeling as if their students were *prepared* in the classroom because of academic intensive care units.

The remaining 38% indicated being *neutral* to the question. There was a standard deviation of 0.90 and a variance of 0.81.

Figure 10

High School A Teacher Perceptions on how well the ICU Program Prepared Students to be Successful in the Classroom



Teachers surveyed were asked to indicate what subject they taught and how many years they have been teaching in their current position within their building. Teachers from a variety of different content areas volunteered to participate in the study. The subjects taught aligned to the years of experience are outlined in Tables 9 and 10.

As High School A, High School B also had teachers from all core subjects volunteer to participate in the survey. Additionally, both EOC assessment tested courses and non-tested courses were represented by surveyed teachers. There were three Mathematics teachers, three English Language Arts teachers, one Social Studies teacher, three Science teachers, and six elective course teachers to participate in the survey. Most of the teachers represented with the survey have taught their subject in their current

building for more than five years. Of the teachers surveyed 31.25% have taught their subject in their current building for 3-5 years. Only one teacher has taught their subject in their current building for two years.

High School A had teachers volunteer from all four core subject areas. Additionally, both EOC assessment tested courses and non-tested courses were represented by surveyed teachers. There were five Mathematics teachers, four English Language Arts teachers, one History teacher, one Science teacher, and five elective class teachers. A majority of teachers have taught their subject in their current building for more than five years.

Table 9

High School A Experience and Subject Taught

Years of Experience	Subject Taught
5+	Mathematics
5+	Practical Arts
5+	Practical Arts
5+	Mathematics
3-5	Mathematics
5+	Health
5+	Mathematics
5+	Art
5+	Science
5+	Mathematics
3-5	History
3-5	English Language Arts
5+	English Language Arts
5+	Agriculture
5+	English Language Arts
5+	English Language Arts

Table 10

High School B Experience and Subject Taught

Years of Experience	Subject Taught
5+	Fine Arts
3-5	Science
3-5	Social Studies
5+	English Language Arts
5+	Science
5+	Mathematics
5+	English Language Arts
5+	Fine Arts
5+	Music
3-5	Science
3-5	English Language Arts
2	Mathematics
5+	Practical Arts
3-5	Gifted
5+	Practical Arts
5	Mathematics

Teacher Interviews

Teacher interviews were conducted off-site at both High School A and High School B. These interviews occurred on two separate days over a two-week time period via ZOOM sessions. A total of three teachers from each school participated in the interview. These consisted of teachers from different content areas and who taught different ability levels: low, on grade level, and high achieving students. Each school had their own set of questions for the interview. The interview responses from High School A were analyzed first.

High School A

Teacher Question 1: Have you noticed any changes over the past school years in your students' academic achievement since implementing the ICU program? All three teachers interviewed commented there was no improvement in grades or achievement on EOC assessments.

Teacher Question 2: If yes, what types of changes? If no, has their achievement remained the same without any change? Two of the three teachers noted there was a significant increase in the number of missing assignments being submitted for grading but contributed that to an increase in student cheating by copying homework. One teacher commented, "EOC scores were very low after year two of implementation. In fact, they were the lowest scores I personally have had throughout my entire teaching career."

Teacher Question 3: How does your school implement the ICU program? Explicitly, what procedures are in place? All three teachers were in agreement on how their school implemented the academic intensive care unit at their school. All three

teachers noted the ICU Database where students were entered along with their missing assignments. The database immediately notified parents/guardians and students of the entry into the database via email and/or text. Coaches and club sponsors monitored the database and had consequences during practice if their students were on the list.

Additionally, all three teachers mentioned the Lifeguard room during advisory. Instead of attending their regular advisory class, students with multiple missing assignments were pulled to the Lifeguard room where two teachers were assigned to help them with their work. Furthermore, two teachers expressed concern how students who were on the ICU database did not get to attend assemblies, fieldtrips, or other activities during the school day. One teacher commented, “Students always felt as if ICU was a punishment because they couldn’t enjoy the fun things that occur at school.”

Teacher Question 4: What are your thoughts on using an ICU program to increase student achievement? All three teachers stated they believe if there is 100% buy in from teachers, proper training, and correct implementation, then academic intensive care units and no-zero grading policies can work and promote higher student achievement.

Teacher Question 5: Based on your experience, does the ICU program work on achievement levels of students? Ex: lower level, grade level, and advanced. All three teachers explained they felt as if high level students were turning more assignments in late than they have in the past. They felt this contributed to lower grades in the classroom because it was harder to move on to the next concept when teachers really couldn’t assess and monitor where their students were currently due to late assignments. One teacher expressed, “If implemented properly, ICU will keep higher students on

target, bring lower students to target while providing them structure and one on one supports, and enhance on target students."

Teacher Question 6: Do you feel schools should continue to implement the ICU program or adopt the ICU program to help increase student achievement? Why or why not? The three teachers were more divided in this question. One teacher stated, "I still believe in the program if implemented properly and trained properly. If not, it is a waste of time and money." Another teacher stated, "Absolutely not. There are not enough benefits and takes a lot to maintain and sustain."

Teacher Question 7: Is there any other insight you would like to elaborate on based on the ICU program implemented in your school? The main feedback provided on this question was a unanimous response of all teachers have to be 100% invested. Additionally, they all felt as if students know how to work the system and submit work on the last day possible of the quarter. They also felt as if academic intensive care units and no-zero grading policies work best in intercity schools or struggling schools where both teachers and students want the extra help and supports.

High School B

Teacher Question 1: Are you familiar with the ICU program? All three teachers interviewed stated they were familiar with the ICU program. However, only one teacher had actually seen an academic intensive care unit in practice.

Teacher Question 2: If your school were to implement the ICU program, do you feel your students would benefit? Why or why not? All three teachers believe if their school were to implement an ICU program their students would benefit. One teacher stated, "In theory it sounds like it will be helpful to all students. It gives students the

ability to do the work, get the work done, get the supports they need, and improve their grades."

Teacher Question 3: What are your thoughts on using the ICU program to increase student achievement? The teachers interviewed at High School B unanimously felt the other programs they have in place lend towards increasing student achievement more than an academic intensive care unit would. One teacher stated:

> We already have a lot of great things going on to improve student achievement. We have after school tutoring and total school RTI. This would just be one more thing on our plate that really does what we are already doing.

Additionally, they felt the program would help with letter grades for the classroom but not lend towards deeper learning. Another teacher commented, "Nothing seems like a high priority with ICU. So, it appears students don't buckle down, work hard, and learn the material in a timely fashion."

Teacher Question 4: What students do you feel would benefit the most from implementing the ICU program? Overall, the teachers interviewed felt that all students to some capacity could benefit if an ICU program were implemented within their school. One teacher stated, "Probably lower kids would benefit grade wise. On level would possibly benefit some. High students usually don't have issues with getting stuff done."

Teacher Question 5: Do you feel schools should continue to implement the ICU program or adopt the ICU program to help increase student achievement? Why or why not? Two of the teachers interviewed had never seen academic intensive care units in practice. They chose to answer this question based upon what they know of the program. The teacher who has seen it in action stated:

> I hope to not have an ICU program implemented at our school. I am not a fan. My experience is from a parent's standpoint. I know my high achieving son began to slack when he was at a school that implemented ICU. I don't want that for my students.

Teacher Question 6: Is there any other insight you would like to elaborate on based on the ICU program that could be implemented in your school? All three teachers interviewed agreed the program appears to be beneficial, helpful, and good in theory. "Anything that is geared towards students completing their work, fighting student apathy, and increasing student achievement is a positive," one interviewee stated. Another teacher is quoted, "In practice, it doesn't give students any incentive to try hard the first time and learn, but instead makes them cram everything at the last second or copy stuff."

Archival Data

The archival data selected to be analyzed for the study were state EOC assessment scores which are housed online through the Missouri Department of Elementary and Secondary Education. Scores were obtained and analyzed for High School A and High School B for comparison purposes. The EOC assessment data were collected for the years 2017 through 2019 spanning over three school years for both High School A and High School B. Assessment data were gathered from Algebra 1 and 2, English 2, Biology 1, and Government. Not all assessment scores were reported each school year. Only the scores recorded on the district report cards were analyzed on the study. Some scores were not reported on specific years because the results were not comparable to the year prior.

In addition to analyzing EOC assessment data per school, the mean scale was analyzed for High School A and High School B. MODESE (2020) used the mean scale score for the following:

> Questar Assessment uses the students' correct responses and points earned to derive the EOC scale score. Students receive an EOC scale score when they have a valid attempt in any test session. For Algebra I, Algebra II, Geometry, English I, English II, Biology, and Physical Science, EOC scale scores have values starting at 325 with 400 as the threshold of the proficient achievement level. Currently, no maximum scale score has been established in order to monitor the possibility of growth. The EOC scale score determines the student's achievement level. (p. 2)

The MAP mean scores for the EOC assessments were analyzed to compare longitudinally the success of academic intensive care units providing higher students achievement on EOC assessments. The purpose for the comparison of the mean scores was to determine if the gap between High School A and High School B students become narrower or wider during the time academic intensive care units were in place at High School A. A two-tailed *t*-test was used to analyze the data with a *p*-value of statistical significance established at 0.05. The data for the Algebra 2 mean score on the EOC assessments for High School A and High School B are listed in Table 11.

High School A students had a MAP mean scale of 210.1 in 2017 in Algebra 2. This is the year academic intensive care units and no-zero grading policies were first implemented at High School A. High School B had a MAP mean scale of 220.1 attributing to a difference of 10.0 points. High School A's mean score rose significantly from 2017 to 2018 with a mean scale of 397.5 creating an increase of 187.4 points. The

following year, the mean scale decreased to 397, but was not significant with a decrease of 0.50 points. In 2017, High School B had a mean scale of 220.1. As with High School A, High School B had a significant increase as well with a mean scale of 406.4 attributing to an increase of 176.3 points. High School B also saw a non-significant decrease the following year with a mean scale of 400.7, creating a decrease of 5.7 points. The gap in mean scale scores between High School A and High School B decreased from 10.0 in 2017 to 2.7 in 2019.

A two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017-2019 school years, when academic intensive care units and no-zero grading were implemented in High School A. The *t*-score obtained was 0.935. A p-value of 0.061was slightly higher than 0.05. Therefore, there was no significant evidence to reject the null hypothesis.

Table 11

Algebra 2 EOC Assessment Results

High School A			High School B		
Year	Number of Students Tested	Mean Scale	Year	Number of Students Tested	Mean Scale
2017	48	210.1	2017	73	220.1
2018	41	397.5	2018	61	406.4
2019	66	397.0	2019	51	400.7

Note. The first year High School A implemented academic intensive care units was 2017.

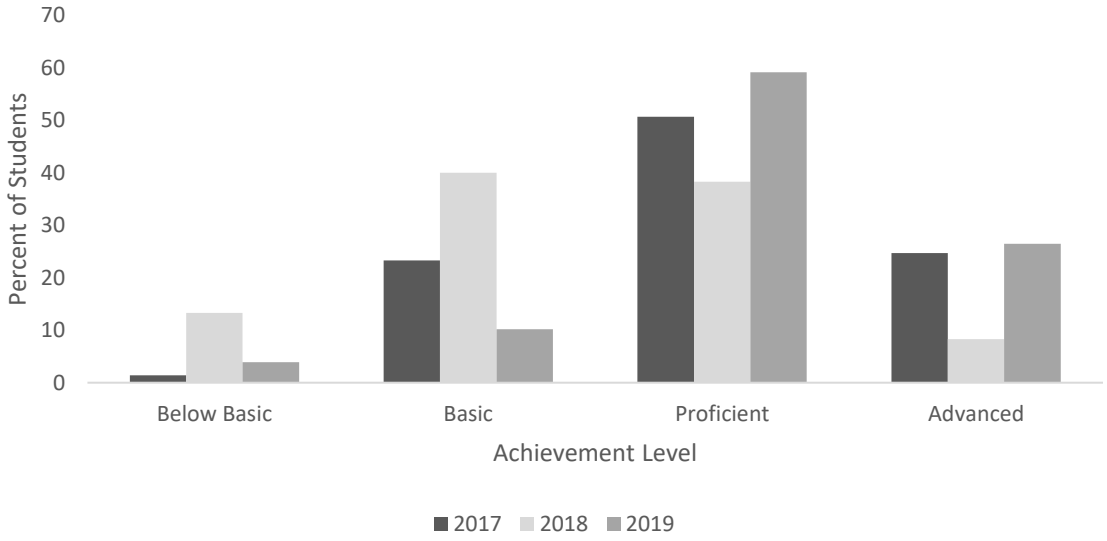
In conjunction with the mean scale scores, the EOC assessment scores were also broken down by performance levels: below basic, basic, proficient, and advanced. These

scores from High School A and High School B are compared together. The data for student achievement in each performance level is found in Figures 11 and 12.

When analyzing the data for the Algebra 2 EOC assessment scores for High School A, some trends were noted and identified. The percentage of students who scored below basic showed an increase from 2017 to 2018, then a decrease from 2018 to 2019. Ultimately defining an increase in students scoring below basic over the three years. The number of students who scored basic increased from 2017 to 2018 and then decreased significantly in 2019. The percentage of students to score proficient decreased from 2017 to 2018 followed by an increase in 2019. The number of students scoring advanced decreased from 2017 to 2018 with an increase the following year.

Figure 11

High School A Student Achievement Levels on Algebra 2 EOC Assessment



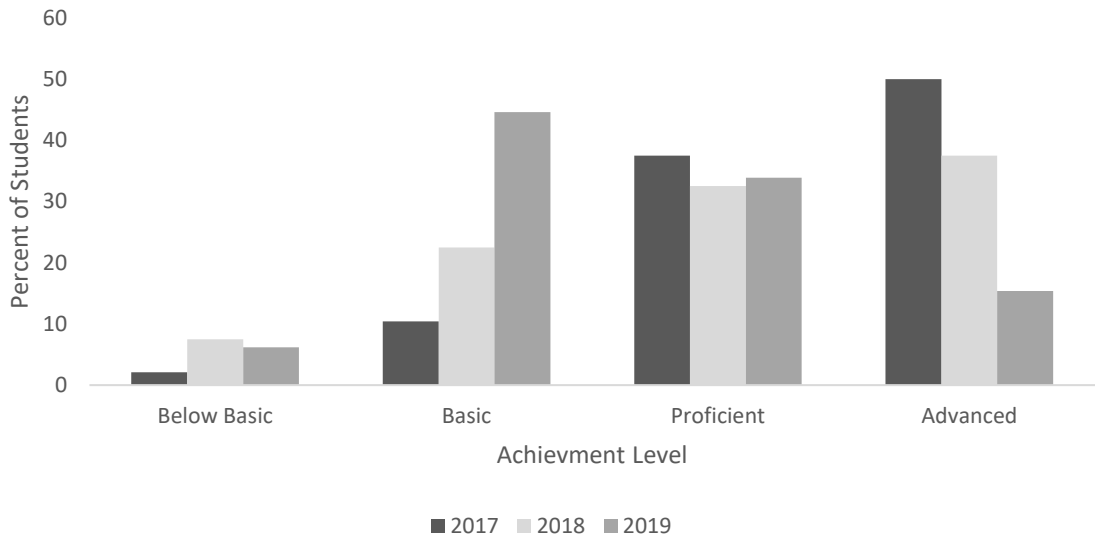
When analyzing the data for the Algebra 2 EOC assessment scores for High School B, some trends were identified. The percentage of students who scored below basic showed an increase from 2017 to 2018, then a decrease from 2018 to 2019.

Ultimately defining an increase in students scoring below basic over the three years. The number of students who scored basic increased from 2017 to 2018 and then another significant increase in 2019. The percentage of students to score proficient decreased from 2017 to 2018 followed by an increase in 2019. The number of students scoring advanced decreased from 2017 to 2018 with a significant decrease the following year.

When conducting a paired two-tail *t*-test for each of the years respectfully, there was no sufficient evidence to reject the null hypothesis for any of the years. The p-value for 2017 was 0.999, 2018 was 0.998, and 2019 was 0.996. All three values were higher than 0.05.

Figure 12

High School B Student Achievement Levels on Algebra 2 EOC Assessment



A two-tailed *t*-test was used to analyze the data with a *p*-value of statistical significance established at 0.05. The data for the Biology 1 mean score on the EOC assessments for High School A and High School B are listed in Table 12.

High School A students had a MAP mean scale of 202.5 in 2017 in Biology 1. This is the year academic intensive care units were first implemented at High School A. High School B had a MAP mean scale of 196 attributing to a difference of 6.5 points. High School A's mean scale rose significantly from 2017 to 2019 with a mean scale of 392.8 creating an increase of 190.3 points. In 2019, High School B had a mean scale of 388.5. As with High School A, High School B had a significant increase as well. High School B had an increase of 192.5 points. The gap in mean scale scores between High School A and High School B decreased from 6.5 in 2017 to 4.3 in 2019.

A two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017-2019 school years, when academic intensive care units and no-zero grading were implemented in High School A. The *t*-score obtained was 0.972. A p-value of 0.128 was higher than 0.05. Therefore, there was no significant evidence to reject the null hypothesis and consider the alternate hypothesis.

Table 12

Biology 1 EOC Assessment Results

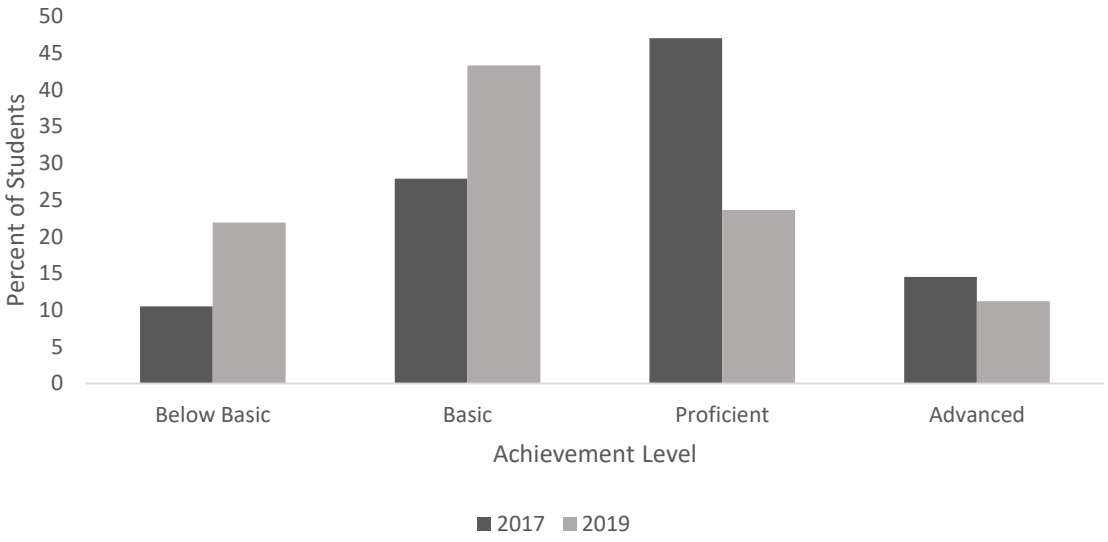
High School A			High School B		
Year	Number of Students Tested	Mean Scale	Year	Number of Students Tested	Mean Scale
2017	250	202.5	2017	354	196
2019	263	392.8	2019	369	388.5

Note. EOC scores were not reported for the 2018 school year.

The Biology 1 achievement levels for both High School A and High School B were represented on Figures 13 and 14. After analyzing the achievement level data for High School A, there was a negative impact on the testing scores between 2017 and 2019. The number of students who scored below basic on Biology 1, increased from 2017 to 2019. There was also an increase in the number of students scoring basic. Additionally, the number of students scoring proficient decreased while the number of students scoring advanced decreased as well. Overall, the amount of below basic and basic students increased while the proficient and advanced decreased.

Figure 13

High School A Student Achievement Levels on Biology 1 EOC Assessment



When analyzing the data for High School B on the Biology 1 EOC assessment, the same trend appeared as with High School A. More students scored below basic in 2019 than in 2017. Additionally, more students scored basic than below basic in 2019 than in 2017. On the other hand, less students scored proficient in 2019 than in 2017 with the same occurring with advanced students.

A paired two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017 and 2019 school years, when academic intensive care units and no-zero grading were implemented in High School A. The p-value was 0.998 which is higher than 0.05. Therefore, there was no significant evidence to reject the null hypothesis and consider the alternate hypothesis.

Figure 14

High School B Student Achievement Levels on Biology 1 EOC Assessment

A two-tailed *t*-test was used to analyze the data with a p-value of statistical significance established at 0.05. The data for the Government mean score on the EOC assessments for High School A and High School B were listed in Table 13.

High School A students had a MAP mean scale of 208.3 in 2017 on the Government EOC assessment. This is the year academic intensive care units were first implemented at High School A. High School B had a MAP mean scale of 202.3 attributing to a difference of 6.0 points. High School A's mean scale rose from 2017 to 2018 with a score of 311.1 creating an increase of 2.8 points. In 2018, High School B had

a mean scale of 204.5. As with High School A, High School B had an increase as well. An increase of 2.2 points was derived for High School B. The gap in mean scale scores between High School A and High School B increased from 6.0 in 2017 to 6.6 in 2018.

A two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017 and 2018 school years, when academic intensive care units and no-zero grading were implemented in High School A. The *t*-score obtained was 0.077. A p-value of 0.030 was statistically lower than 0.05. Therefore, there was sufficient evidence to reject the null hypothesis and consider the alternate hypothesis.

Table 13

Government EOC Assessment Results

High School A			High School B		
Year	Number of Students Tested	Mean Scale	Year	Number of Students Tested	Mean Scale
2017	377	208.3	2017	269	202.3
2018	329	211.1	2019	280	204.5

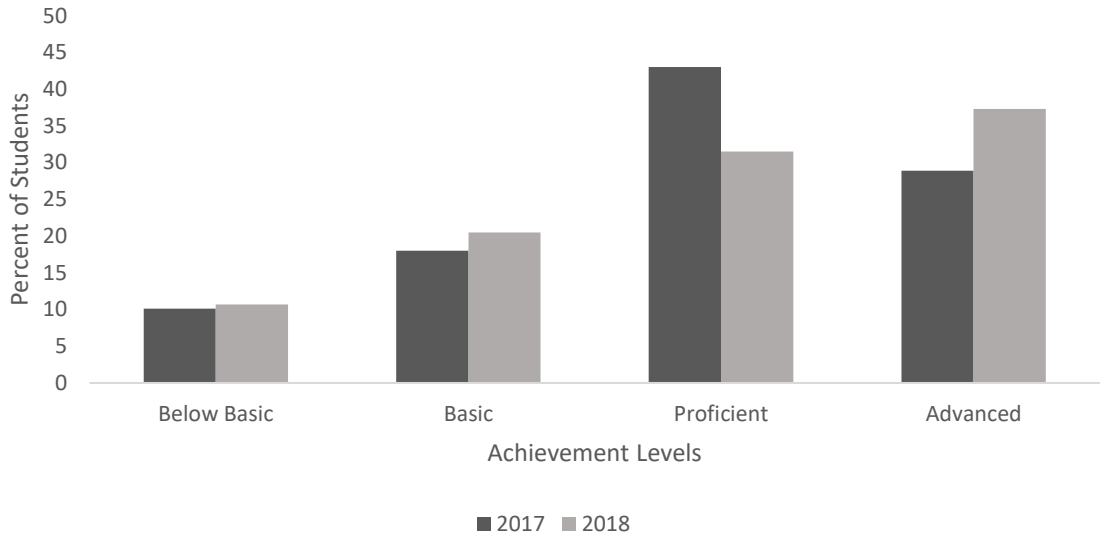
Note. EOC scores were not reported for the 2019 school year.

The Government achievement levels for both High School A and High School B were represented on Figures 15 and 16. After analyzing the data for Government EOC assessment achievement levels for students at High School A, the following could be inferred from Figure 15 above. There was a slight increase in the number of students scoring below basic from 2017-2018. Additionally, there was also an increase in students scoring basic from 2017-2018. On the contrary, there were less students who scored

proficient in 2018 than in 2017. There was also an increase in the number of students who performed at the advanced level from 2017-2018.

Figure 15

High School A Student Achievement Levels on Government EOC Assessment

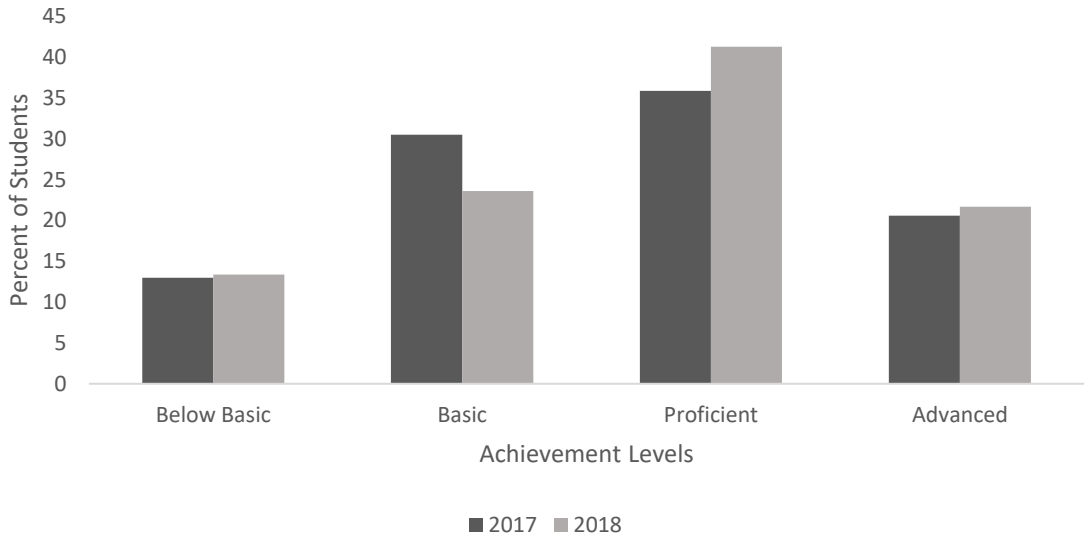


After analyzing the data for Government EOC assessment achievement levels for students at High School B, the following could be inferred from Figure 16 above. There was a slight increase in the number of students scoring below basic from 2017-2018. There was a decrease in the number of students who scored basic. Additionally, there was an increase in the number of students who proficient. Finally, the number of students who scored advanced also increased from 2017-2018.

A paired two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017 and 2018 school years, when academic intensive care units and no-zero grading were implemented in High School A. The p-value was 1.00 which is higher than 0.05. Therefore, there was no sufficient evidence to reject the null hypothesis and consider the alternate hypothesis.

Figure 16

High School B Student Achievement Levels Government EOC Assessment



A two-tailed *t*-test was used to analyze the data with a p-value of statistical significance established at 0.05. The data for the English 2 mean score on the EOC assessments for High School A and High School B were listed below in Table 14.

High School A students had a MAP mean scale of 400.5 in 2018 on the English 2 EOC assessment. High School B had a MAP mean scale of 376.2 attributing to a difference of 24.3 points. High School A's mean scale decreased from 2018 to 2019 with a mean scale of 397.5 creating a decrease of 3.0 points. In 2019, High School B had a mean scale of 402.9. Contrary to High School A, High School B had an increase in the mean scale. An increase of 26.7 points was derived for High School B. The gap in mean scale scores between High School A and High School B increased from 24.3 in 2018 to 26.7 points in 2019.

A two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017 and 2018 school years,

when academic intensive care units and no-zero grading were implemented in High School A. The *t*-score obtained was 0.607. A p-value of 0.639 was statistically higher than 0.05. Therefore, there was not sufficient evidence to reject the null hypothesis and consider the alternate hypothesis.

Table 14

English 2 EOC Assessment Results

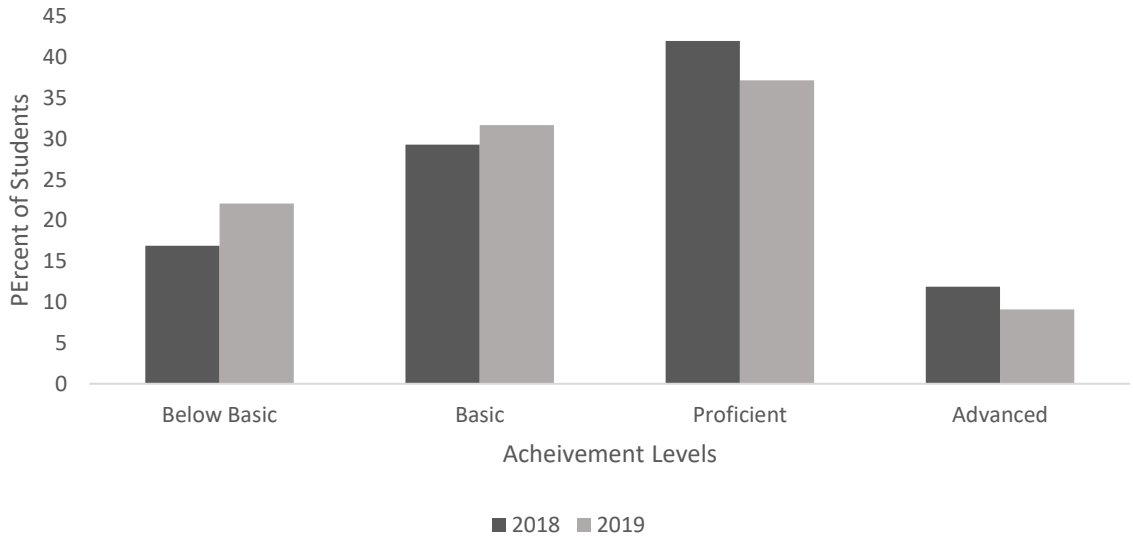
High School A			High School B		
Year	Number of Students Tested	Mean Scale	Year	Number of Students Tested	Mean Scale
2018	384	400.5	2017	302	376.2
2019	333	397.5	2019	299	402.9

Note. EOC scores were not reported for the 2017 school year.

The English 2 achievement levels for both High School A and High School B are represented on Figures 17 and 18. After analyzing the data for the English 2 EOC assessment achievement levels for students at High School A, the following could be inferred from Figure 17 above. There was an increase in the number of students scoring below basic from 2018 to 2019. Additionally, there was also an increase in students scoring basic from 2018 to 2019. On the contrary, there were less students who scored proficient in 2019 than in 2018. There was also a decrease in the number of students who performed at the advanced level from 2018 to 2019.

Figure 17

High School A Student Achievement Levels English 2 EOC Assessment

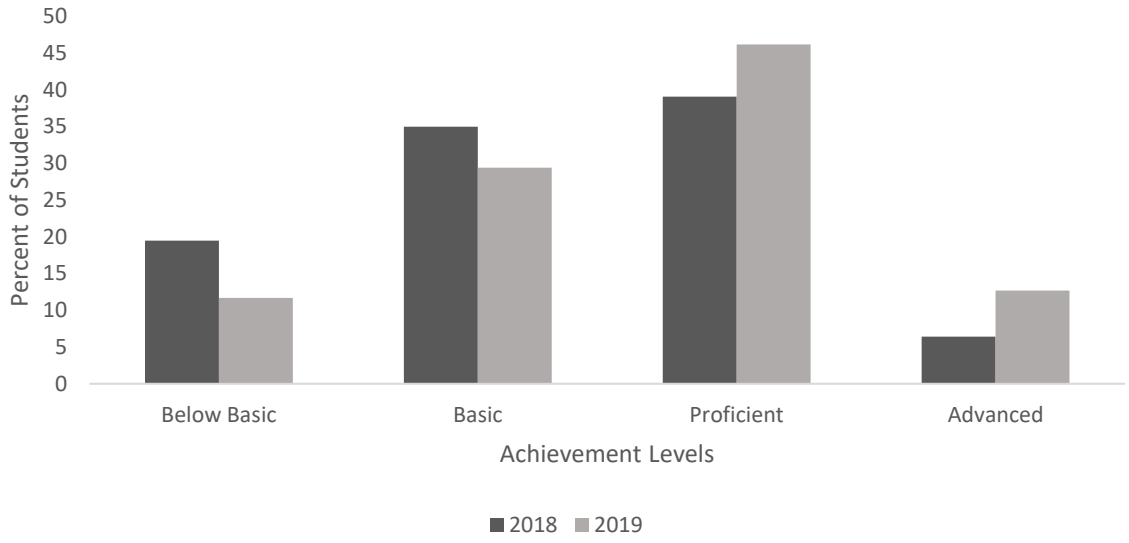


After analyzing the data for the English 2 EOC assessment achievement levels for students at High School B, the following could be inferred from Figure 18. There was a decrease in the number of students scoring below basic from 2018 to 2019. There was also a decrease in the number of students who scored basic. Additionally, there was an increase in the number of students who proficient. Finally, the number of students who scored advanced also increased between 2018 and 2019.

A paired two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017 and 2018 school years, when academic intensive care units and no-zero grading were implemented in High School A. The p-value was 0.994 which is higher than 0.05. Therefore, there was no sufficient evidence to reject the null hypothesis and consider the alternate hypothesis.

Figure 18

High School B Student Achievement Levels English 2 EOC Assessment



A two-tailed *t*-test was used to analyze the data with a p-value of statistical significance established at 0.05. The data for the Algebra 1 mean scale on the EOC assessments for High School A and High School B are listed in Table 15.

Table 15

Algebra 1 EOC Assessment Results

High School A			High School B		
Year	Number of Students Tested	Mean Scale	Year	Number of Students Tested	Mean Scale
2018	476	391.7	2017	244	391.3
2019	362	392.5	2019	217	393.3

Note. EOC scores were not reported for the 2017 school year.

The Algebra 1 achievement levels for both High School A and High School B are represented on Figures 19 and 20. High School A students had a MAP mean scale of

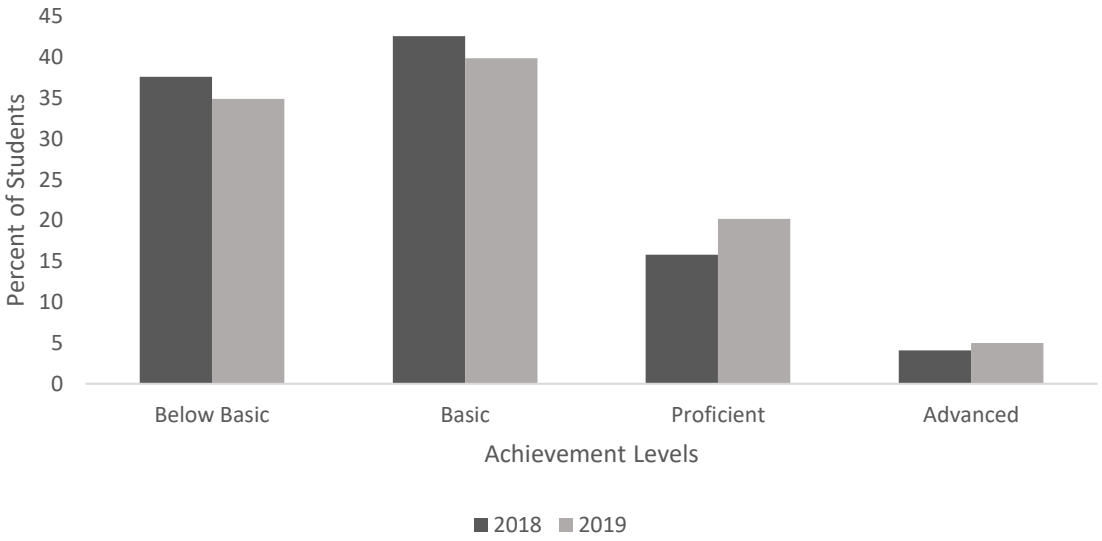
491.7 in 2018 on the Algebra 1 EOC assessment. High School B had a MAP mean scale of 391.3 attributing to a difference of 1.6 points. High School A's mean scale increased from 2018 to 2019 with a mean scale of 392.5 creating an increase of 0.8 points. In 2019, High School B had a mean scale of 393.3. As with High School A, High School B had an increase in the mean scale. An increase of 2.0 points was derived for High School B. The gap in mean scale scores between High School A and High School B increased from 0.4 points in 2018 to 0.8 points in 2019.

A two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2018 and 2019 school years, when academic intensive care units and no-zero grading were implemented in High School A. The *t*-score obtained was 0.877. A p-value of 0.795 was statistically higher than 0.05. Therefore, there was not sufficient evidence to reject the null hypothesis and consider the alternate hypothesis.

After analyzing the data for the Algebra 1 EOC assessment achievement levels for students at High School A, the following could be inferred from Figure 19. There was a decrease in the number of students scoring below basic from 2018 to 2019. Additionally, there was also a decrease in students scoring basic from 2018 to 2019. Furthermore, there were less students who scored proficient in 2018 than in 2019. There was also an increase in the number of students who performed at the advanced level from 2018 to 2019.

Figure 19

High School A Student Achievement Levels Algebra 1 EOC Assessment

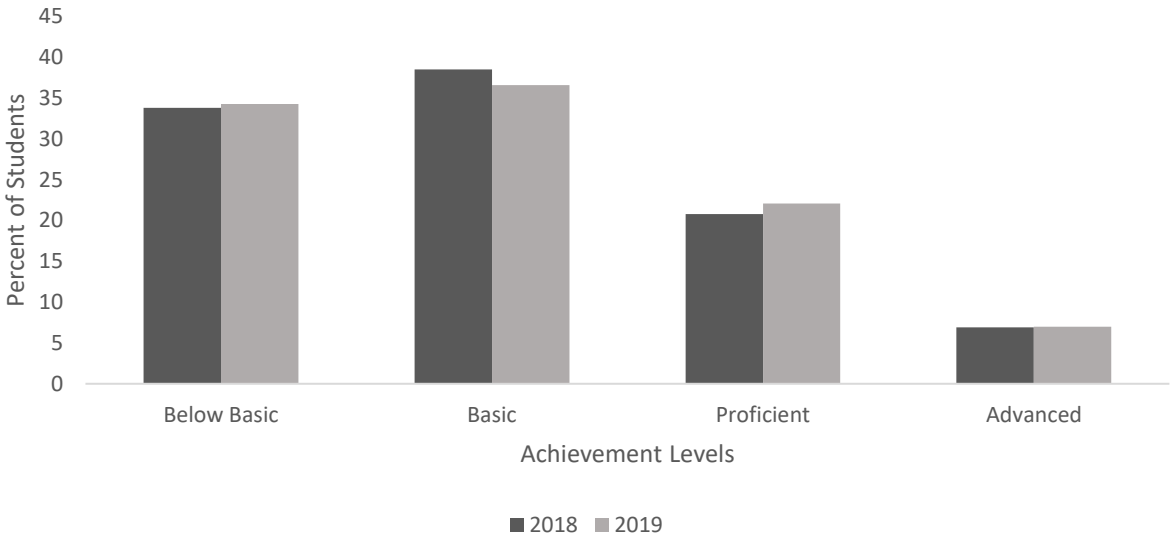


After analyzing the data for the Algebra 1 EOC assessment achievement levels for students at High School B, the following could be inferred from Figure 20. There was a slight increase in the number of students scoring below basic from 2018 to 2019. There was also a decrease in the number of students who scored basic. Additionally, there was an increase in the number of students who proficient. Finally, the number of students who scored advanced also increased slightly between 2018 and 2019.

A paired two-tailed *t*-test using $\alpha = 0.05$ was conducted which compared the mean scale scores of High School A and High School B during the 2017 and 2018 school years, when academic intensive care units and no-zero grading were implemented in High School A. The *p*-value was 1.0 which is higher than 0.05. Therefore, there was no sufficient evidence to reject the null hypothesis and consider the alternate hypothesis.

Figure 20

High School B Student Achievement Levels Algebra 1 EOC Assessment



Summary

In conclusion, the qualitative and quantitative data were discussed and represented. Tables and figures were interleaved to explain the data presented. The data were broken down by headings: student surveys, student interviews, teacher surveys, teacher interviews, and archival data. These data were further analyzed either qualitatively or quantitatively. Surveys provided both qualitative and quantitative. The interviews only provided qualitative data, while the archival data was analyzed for quantitative data.

In Chapter Five, the findings of this study were discussed. Additionally, the conclusions to the research questions were explained and supported with evidence. Furthermore, the implications for practice based upon this study and the results were addressed as well. Finally, recommendations for future research have been provided in the Chapter Five.

Chapter Five: Summary and Conclusions

The purpose of this study was to determine if academic intensive care units along with no-zero grading policies allow for higher achievement on state EOC assessments among high school students. Five main research questions guided this study. The study began with the primary investigator completing a literature review and researching academic intensive care units, no-zero grading policies, history of grading, and research-based grading practices. Likewise, the benefits and hindrances of academic intensive care units and no-zero grading policies were researched.

Upon completing the research, the framework for how the results would be presented was created. Two high schools were used in the study. High School A had been implementing academic intensive care units and no-zero grading practices during the previous three school years. High School B had never implemented academic intensive care units or no-zero grading practices. The two schools were similar in demographics. A census survey was sent to students and teachers at both schools, allowing individuals to volunteer to participate in the study. Site permission letters were sent to both schools, and letters explaining the study and participant consent were sent out to teachers, students, and guardians.

Following the completion of the surveys, interviews were conducted at both schools. Two sample populations were interviewed at each school: teachers and students. Interviewees were selected using a stratified random sample. Three teachers from each school participated in the interview. The teachers taught different subjects and different student ability groups. Twelve students from each school were selected at random to participate in interviews as well. With the help of the high school counselor at each

school, volunteers were randomly selected from ability groups. This process ensured three student participants from each school in each ability group of below grade level, grade level, and above grade level participated in the interview.

The third type of data analyzed for this study was archival data housed on MODESE's website and public data. The data from the two schools were compared and analyzed. The data from all three sources were presented in Chapter Four.

In Chapter Five, the findings from the statistical analysis of data were presented. All research questions and hypotheses were addressed in this chapter. Additionally, the conclusions to this study were given with research to support the study's conclusions. Following the discussion of the conclusions of the study, implications for practice were presented. Recommendations for future research were also addressed in this chapter. Finally, a summary of the study concluded Chapter Five.

Findings

The findings from the statistical analysis of the data were presented in this section of the chapter. First, the findings of the student surveys were discussed, followed by a review of the results acquired from the student interviews. The subsequent statistical analysis revealed the findings from the teacher surveys. The findings pertaining to the teacher interviews followed. The last statistical analysis is of the archival data collected from the MODESE. Finally, the findings were related to the research questions and hypotheses.

The data pertaining to student surveys was the first to be analyzed. Each school was reviewed separately and as well as a comparison between the two schools. When analyzing if students believe academic intensive care units are beneficial to students, the

responses from the schools were on opposing sides. Only 23.53% of students at High School A found academic intensive care units beneficial, while 62.50% of High School B students found academic intensive care units beneficial. Upon analyzing the objective responses from students regarding their reasoning as to why they believe academic intensive care units are beneficial to students or not, High School A provided three benefits. In contrast, High School B students expressed seeing five areas of benefits within these programs. Students from High School A expressed four reasons why they felt academic intensive care units do not benefit student achievement. In contrast, High School B students only provided two rationales for academic intensive care units not being beneficial to students.

The next question on the survey was asked to gather data on student perceptions pertaining to if students would take, or are taking, advantage of an academic intensive care unit implemented in their school. Students at both schools interpreted taking advantage of academic intensive care units as having a negative connotation. Of the students surveyed at High School A, 75% felt students would take advantage of an academic intensive care unit for the wrong reasons, and 68.75% of students at High School B felt the same. When reviewing the objective responses indicating why the participants believed students would/were taking advantage of academic intensive care units, responses were consistent between the two schools. Each school had four defining reasons as to why students would take advantage of an academic intensive care unit. Of the students surveyed, 66.67% listed negative or nonacademic reasons for students to take advantage of an academic intensive care unit, while 50% of High School B students indicated negative reasons.

The survey question about students feeling as if students do/would use academic intensive care units for the correct educational purposes provided more enriching data for the study. High School A students were almost evenly divided amongst the five categories. On the other hand, most students from High School B took a neutral disposition to the question. The remaining students' indications were evenly divided in believing students would and would not utilize academic intensive care units for the correct educational purposes.

When analyzing the results from asking students at both schools how well they felt the academic intensive care units properly prepare students for higher academic achievement on state EOC assessments, the results differed for each school. Students from High School A were almost evenly split, believing the units prepare students properly and believing the units do not prepare students properly for higher achievement on EOC assessments. High School B, on the other hand, had 16.67% take a neutral disposition. At the same time, the remaining students indicated they believe academic intensive care units properly prepare students to obtain higher academic achievement on EOC assessments.

The last question on the survey provided data on student perceptions regarding academic intensive care units preparing students to be successful within the classroom. Again, High School A students were spread out almost evenly with their responses, while most High School B students took a neutral disposition. Of the remaining students surveyed at High School B, the predominant response was academic intensive care units do prepare students to be successful in the classroom.

The findings from the student survey indicated more students from High School A (which does implement academic intensive care units) than High School B believe there are no student benefits from the implementation of academic intensive care units. Additionally, High School A students provided more non-benefits for students using academic intensive care units. On the other hand, high School B listed more explanations of benefits for students using academic intensive care units.

A majority of High School A students listed negative reasons students would take advantage of academic intensive care units. Only half of High School B students provided concrete negative reasons for students taking advantage of academic intensive care units. There were no significant statistical data indicating students at High School A or High School B firmly believed students would use academic intensive care units for the correct educational purposes. The results yielded from the data were evenly split on beliefs after disregarding the neutral responses.

Another finding from the student surveys indicated no students from High School B believed academic intensive care units do not properly prepare students for higher academic achievement on state EOC assessments. A statistical result of 58.33% of students from High School A believed academic intensive care units do not properly prepare students for higher academic achievement on state EOC assessments. The evidence presented here indicated more students who currently participate in academic intensive care units feel as if the program does not contribute to higher academic achievement.

The findings for the final survey question indicated High School A students were evenly dispersed in their beliefs that academic intensive care units prepare students to be

more successful in the classroom. However, more High School B students believed academic intensive care units prepare students to succeed in the classroom.

The overall findings from the student surveys indicated through student perceptions revealed more High School A students view academic intensive care units in a negative light than High School B students. There were no statistical findings that students at High School A believed that students used academic intensive care units for the correct educational purposes, were properly prepared for EOC assessments, or were more prepared to be successful in the classroom due to academic intensive care units. High School B students predominantly indicated neutral feelings for students properly using academic intensive care units for the correct educational purposes and for believing academic intensive care units prepare students properly for EOC assessments or to be more successful in the classroom.

The findings from the student interviews at both High School A and High School B provided more profound and enriching data for the study. Upon analyzing the student interviews, 100% of the students surveyed at High School A had missing assignments, while only 58.33% of students interviewed had missing assignments. In both schools, all below grade level students indicated having missing assignments in all of their classes. However, the reasoning for having missing assignments was different between the two schools. High School A's below level students responded with multiple missing assignments because it can happen with no penalty. High School B's below students expressed they are already failing, have consistently failed, and are too late because they are too far behind. Math and English were the two predominant classes for late work in grade-level students at both high schools. Again, on grade level students at High School

A indicated having late assignments because it is allowed. On grade level students at High School B suggested the reasoning for late math assignments is the fact daily assignments are assigned, which count for very minimal points in the grade book. These students chose to focus on assignments that are worth more points. Only three students from High School A indicated academic intensive care units push them to try their best academically. Additionally, five students admitted they would have more missing assignments if there were no penalty for late work.

The findings from the student interviews were clear; more students have missing assignments in the school that implemented academic intensive care units and no-zero grading policies. The main reason provided by the students was they could have missing assignments with no penalty. Most students who attended the school with academic intensive care units and no-zero grading policies did not feel pushed to succeed academically. Additionally, 41.67% of students who did not attend a school with academic intensive care units believed they would have more missing assignments if they were at a school that implemented these programs.

The findings from the teacher surveys came from the analysis of both the quantitative and qualitative data obtained from the participants' responses. Seventy-six and four-tenths percent of teachers employed at the school that implemented academic intensive care units and no-zero grading policies found the units to be of little or no benefit to their students. In comparison, 24% of teachers working at the school that did not implement these academic intensive care units indicated they would not benefit their students. Additionally, very few explanations of the program's benefits were provided by High School A teachers, while various non-benefits were provided. The exact opposite

was true for High School B teachers, meaning various reasons were provided for the benefits of implementing academic intensive care units.

Additional findings from the teacher survey revealed 81.25% of teachers working at a school implementing academic intensive care units and no-zero grading policies believed the programs do not properly prepare their students for higher academic achievement on EOC assessments. Again, the opposite was true for teachers working in a school where these programs were not implemented. Only 33.25% of High School B teachers felt their students would not be properly prepared for EOC assessments if academic intensive care units and no-zero grading policies were implemented. To validate this finding, 75% of teachers at High School A provided explanations for why academic intensive care units and no-zero grading policies did not properly prepare their students for EOC assessments. In comparison, 12.5% of High School B teachers provided reasoning for believing academic intensive care units and no-zero grading would prepare their students for EOC assessments.

As with students at both high schools, the teachers at both high schools perceived students taking advantage of an academic intensive care unit as a negative perception. More teachers (62.5%) at High School A indicated students taking advantage of an academic intensive care unit than teachers (50%) at High School B. Furthermore, most teachers at both schools explained more negative reasons students would take advantage of an academic intensive care unit than positive reasons.

Paralleling previous findings from the teacher surveys, 62.5% of teachers who work at a school that implements academic intensive care units believed students do not use their programs for correct educational purposes. Only 37.5% of teachers working in

the school did not implement programs felt students would not use academic intensive care units for the proper educational purposes.

When analyzing the data, 62.5% of teachers at High School A indicated academic intensive care units do not prepare students properly for EOC assessments, while 31.25% of High School B teachers felt the same. Of the teachers surveyed at High School A, 56% believed academic intensive care units do not prepare students properly to succeed in the classroom. The finding from teachers working at the school that implemented academic intensive care units and no-zero grading policies revealed more negative perceptions of the program than teachers working at the school that did not implement academic intensive care units and no-zero grading policies.

The findings from the teacher interviews were correlated directly with the results from the teacher surveys. Teachers at High School A observed no improvements in grades or EOC assessments but did observe a much higher volume of missing assignments. The findings further indicated teachers at High School A believed students from all ability levels had been negatively affected by academic intensive care units and no-zero grading policies. More missing assignments cause lower grades and teacher frustrations of not being able to assess their students properly. Most teachers at High School A believed the program could work if other factors were corrected. However, the teachers felt academic intensive care units were only beneficial to inner-city schools or schools where both students and teachers want the help.

The findings from High School B teachers were the opposite of High School A teachers. Teachers at High School B believed their students would benefit from academic intensive care units and no-zero grading policies. However, the teachers at High School B

believed the programs already in place were much better than academic intensive care units. These teachers also felt all students could benefit from partaking in an academic intensive care unit because the program appears beneficial, helpful, and good in theory.

After analyzing the archival data, multiple findings were discovered. Upon reviewing and analyzing the MAP mean scores at both High School A and High School B, no statistical evidence indicated a variance in scores. For each subject in which students participated in an EOC assessment, the change in scores from year to year followed the same pattern at both schools. For Algebra 2, from year one to year two, there was a significant increase in scores followed by a slight decrease in scores in the third year. This pattern was true for both schools. There was also a significant increase in Biology 1 scores for both schools.

Additionally, there was a slight increase from year one to year two for the Government EOC assessment, followed by a slight additional increase in year three. For the English 2 scores, there was a slight decrease from year one to year two, followed by a slight increase in year three for both schools. Finally, for Algebra 1, there was a slight increase from year one to year two, followed by a slight additional increase in the third year for both schools.

The archival data were also analyzed according to student achievement levels over the three school years. The findings from these data follow. For Algebra 2, there were no differences in student growth from 2017 to 2018 between the two schools. However, there were differences in student growth from 2018 to 2019. For High School A, fewer students performed at a basic level while more students performed at an advanced level. This change indicates a positive student growth in Algebra 2 for High

School A. For High School B, there was an increase in the number of students who performed at a basic level, while there was a decrease in the number of students who scored advanced. This change indicates a decline in student growth in Algebra 2 at High School B. For the Biology 1 EOC assessment, there were no differences in student growth from 2018 to 2019 between the two schools, indicating no impact from academic intensive care units being implemented in Biology classes.

For the Government EOC assessment, High School A had more students perform at the basic level while fewer students performed at the advanced level from 2017 to 2018. This change depicted negative student growth for High School A. High School B had fewer students perform at the basic level, and more students perform at the proficient level, indicating positive academic growth for High School B. For the English 2 EOC assessment, High School A had more students perform below basic and basic, and fewer students score advanced between the 2018 to 2019 school year. This change indicated negative growth in student achievement. On the other hand, High School B had a decrease in students who scored below basic and basic and increased the number of students scoring proficient between the 2018 and 2019 school year. This change suggested a positive growth in student achievement for High School B.

The final EOC assessment scores analyzed were for Algebra 1. High School A had fewer students perform at the below basic level from 2018 to 2019. There were no differences in the other performance levels. For High School B, there was an increase in the number of students who scored below basic. However, there were no changes in the other performance levels. A positive change in student achievement could not be assured due to no differences in the remaining performance levels. The findings from these data

indicated over the three years, students at High School B accomplished higher performance levels between school years than students at High School A.

Through the analysis of the data throughout the study, the research questions and hypotheses were answered. The findings to the five research questions for this study were presented below. The hypotheses are also addressed.

Research Question One: *What is the difference between the perceptions of high school students who believe intensive care units are beneficial for students when compared to high school teachers who believe intensive care units are beneficial for students?* For this question, the null hypothesis was not rejected. There was no significant difference between the perceptions of high school students who believe academic intensive care units are beneficial for students when compared to high school teachers who believe academic intensive care units are beneficial for students.

Research Question Two: *What benefits do high school students and high school teachers identify with the academic intensive care units and no-zero grading policy?* The benefits students identify with academic intensive care units, and no-zero grading policies were: helps students grow; unique to students' needs, helps get assignments completed, motivates students, and holds students responsible. The benefits high school teachers identify with academic intensive care units and no-zero grading policy were: helps struggling students, provides extra supports, students and teachers know crucial curriculum, separates students from distractions, reminds students to do work, and holds students accountable.

Research Question Three: *What challenges do high school students and teachers identify with the academic intensive care units and no-zero grading policies?* Students

perceived these areas as challenges with academic intensive care units and no-zero grading policies: students should complete work either in class or at home, students miss out on fun things at school, teachers are not flexible, does not prepare students for college, students are not held accountable, and lack of student discipline. Teachers perceived these areas as challenges with academic intensive care units and no-zero grading policies: does not prepare students for college/workforce, targeted student audience, more work for teachers, creates bad habits with late work, standards are low with the program, inadequate interventions, lost learning goals, no benefits seen at all, negates personal responsibility/accountability, and student pushback.

Research Question Four: *What is the difference between student achievement scores on state EOC assessment at High School A compared to High School B?* For this question, the null hypothesis was not rejected. There was not a significant difference between student achievement scores on state EOC assessments at High School A compared to High School B.

Research Question Five: *What is the academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program?* For this question, the null hypothesis was rejected. There was an academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program.

Conclusions

The findings from this study revealed the conclusion that academic intensive care units and no-zero grading policies at the high school level do not result in students having

higher achievement levels on EOC assessments. Data from the study supported this conclusion. Additionally, previous research on academic intensive care units and no-zero grading policies add support to the conclusion of the study.

The first research question for this study helped to shape the conclusion. The null hypothesis was not rejected for the first research question. The question posed was, "*What is the difference between the perceptions of high school students who believe intensive care units are beneficial for students when compared to high school teachers who believe intensive care units are beneficial for students?*" There was no significant difference between the perceptions of high school students who believe academic intensive care units are beneficial for students when compared to high school teachers who believe academic intensive care units are beneficial for students. The analysis of the data from student surveys/interviews and teacher surveys/interviews yielded no statistical difference in student and teacher perceptions. Although, predominantly, more students and teachers indicated believing academic intensive care units were beneficial to students.

According to Hill (2014), every student and teacher believed students must learn the academic standards taught in class. Hill (2014) explained, "Teachers view homework as academic practice for students to learn the academic standards; therefore, teachers cannot allow students to miss out on practice" (p. 23). According to Bolger (2013), there are teachers who view no-zero grading policies as a positive move, thus creating a positive move towards standardized grading. Hill & Nave (2009) explained that teachers have difficulty knowing what their students truly know and comprehend if they do not

complete assignments. This statement was supported by teacher responses to the interview questions of the study.

When answering the second research question, "*What benefits do high school students and high school teachers identify with the academic intensive care units and no-zero grading policy?*" there were similar responses between the teacher survey/interview participants and the student survey/interview participants. Students provided five ways they believed academic intensive care units and no-zero grading were beneficial to students, while teachers provided six ways. Both groups believed academic intensive care units and no-zero grading help students grow by providing supports to struggling students. Additionally, both teachers and students believed academic intensive care units and no-zero grading policies reminded students to complete their work, held students accountable, and took responsibility for their learning.

According to Hill and Nave (2009), "Research shows that learning is motivational to everyone, while grades alone only motivate our top students" (p. 33). When analyzing the interview responses, the below grade level students commented about always having low grades or their grades being so low they struggled to keep up. The poor grades these students were currently earning did not motivate them to try harder. According to Barmeier (2018), when teachers show students they will not allow them to take a zero, show students they are there to help, show students their learning is/was important, and provide extra time for students to complete work, students naturally become responsible for their learning, realize teachers do care about them, and discover that since teachers care, they do not accept excuses for not completing assignments. Caneva (2014) worked at a school which began implementing no-zero grading policies; she discovered her

school's freshmen had an on-track rate of 59% that rose to 87% after year one of implementation (p. 54). Additionally, students must complete quality enriching assignments (Hill & Nave, 2009). Thus, upon completion, teachers can add the benefits of feedback from homework, which maximizes students' learning (Cunha et al., 2019).

Research Question Three also guided a conclusion of the study. Question Three was, "*What challenges do high school students and teachers identify with the academic intensive care units and no-zero grading policies*?" It was essential to analyze both the benefits and challenges perceived about academic intensive care units and no-zero grading policies before forming a well-rounded conclusion for the study. Teachers provided more challenges with academic intensive care units than students did. Both students and teachers believed academic intensive care units and no-zero grading policies did not prepare students properly for college or the workforce. Additionally, both groups stated a lack of student discipline and that personal responsibility and accountability were negated through the implementation of academic intensive care units and no-zero grading policies. Both teachers and students indicated there was still late work with academic intensive care units and no-zero grading policies.

According to Dennis (2018), college professors have reported a decline in student achievement since no-zero grading policies have been implemented in schools. These professors now fear students can no longer work with deadlines in place due to these policies (Dennis, 2018). According to Balingit and St. George (2016), students find loopholes and know how to work the system, and will complete the least amount of work necessary to pass while complying with the policies in place at their school. Parents and students need to be provided with fair and accurate information regarding the progress of

student achievement; the primary source referenced for student achievement progress is grades (Long, 2017). If assignments are not submitted on time to learn the required material as the class progresses, then achievement feedback is not accurate and there is a negative impact on student progress (Long, 2017). According to Dennis (2018), no-zero grading policies should be questioned as they create a lack of student achievement.

To further shape the conclusion of this study, data pertaining to research Question Four were collected and analyzed. Question Four was, "*What is the difference between student achievement scores on state EOC assessment at High School A compared to High School B?*" Upon analyzing these data, there was not a significant difference between student achievement scores on state EOC assessments at High school A compared to High School B. The findings of the data suggested there is no difference between student achievement on EOC assessments at schools using academic intensive care units and no-zero grading policies and schools that do not use the programs. This leads to the conclusion that academic intensive care units and no-zero grading policies at the high school level do not result in students having higher achievement levels on EOC assessments.

The statistical data in this study suggested there is no difference between students having higher achievement levels on EOC assessments regarding schools which implement academic intensive care units and schools who do not implement this program. Additionally, Fernandez (2020) explained, "The critical value that most statisticians choose is $\alpha = 0.05$. This 0.05 means that, if we run the experiment 100 times, 5% of the times we will be able to reject the null hypothesis and 95% we will not." For this study, $\alpha > 0.05$, so the null hypothesis was not rejected.

The last research question asked, "*What is the academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program?*" The null hypothesis was rejected for this research question. There is an academic difference between students at High School A who indicated they submit late work and those at High School B who do not attend a school with a no-zero program.

A *t*-test for proportions was implemented in this study. According to Fraenkel et al. (2019), "The most commonly used parametric tests for analyzing categorical data are the *t*-tests for a difference in proportions-that is, whether the proportion in one category is different from the proportion in another category," (p. 231–232). When statistical analysis showed that the significance level was met, the null hypothesis was rejected (Laerd Statistics, 2013).

Implications for Practice

Upon completing this study, several gaps were identified, and several directions for changing practice became evident. By changing the practice relating to academic intensive care units and no-zero grading policies, further advances in student achievement could be observed. These implications are discussed below.

One implication determined during this study is grade inflation. Students have had a false sense of academic achievement and their abilities due to no-zero grading policies creating grade inflation. By removing no-zero grading policies within school systems, students can have a more accurate depiction of their grades and thus a deeper understanding of where their achievement level actually is.

With the implementation of academic intensive care units and no-zero grading policies, there could be a correlation between classroom student achievement and projected student achievement on EOC assessments. To achieve the goal of higher student achievement both in the classroom and on state EOC assessments, content teachers could become the Lifeguards for the academic intensive care units. These Lifeguards could pull students during ICU time allotted throughout the school day to help these students complete assignments to the best of their abilities.

Another change in practice would be to implement tutoring rooms alongside academic intensive care units. Designated tutoring rooms can be available before and after school for ICU students only. Students would report to the correct rooms to receive the supports they need in the subject they need. The supports given during this time would be to help with completing assignments and providing reteaching if needed. Tutoring in conjunction with academic intensive care units would result in higher student academic achievement both in the classroom and on state EOC assessments.

Recommendations for Future Research

The significance of this study is to add to existing research on academic intensive care units and no-zero grading policies by providing additional information on these policies, thus allowing stakeholders to become better informed on potential outcomes and impacts of implementing these programs and policies. After this study, implications for practice were noted. Based on the findings of this study, there are things that could or should have been completed differently. These recommendations for future research were addressed below in this section. Rationales indicating the importance of the recommendations are also provided.

The first recommendation for future research regarding this study discussed things which could have been done differently. The first change recommended was the primary investigator sent all communications to students and teachers electronically. Physical copies were placed in advisory teachers' mailboxes at both schools to be distributed to students. This communication included: letters to participate in surveys and interviews, research study consent forms, research study assent forms, survey study information sheet, and explanation of the study. This process could be a contributing factor to the low participation rates of students at both schools. In the future, the primary investigator should go to both sites independently and orally explain the study to all students and teachers and physically hand out forms. This practice would validate that all forms were distributed to both teachers and students. The primary investigator also would not have to rely on other individuals to recruit participants for the study.

This study focused on individual interviews to discover in-depth attitudes of academic intensive care units and no-zero grading practices. A suggestion for future study would be to introduce a new instrument of study such as focus groups. This instrument would become centered on students of different ability groups, their late assignment patterns, classroom achievement patterns, and student achievement on the EOC assessment. By following a smaller focus group and studying their behaviors and perceptions throughout the school year, deep meaningful data would be collected and analyzed. Thus, providing a more enriching study.

A third recommendation for future research resulting from this study was in the selection of the two schools. The school selected which implements academic intensive care units and no-zero grading policies only does so at the high school level. In the future,

when selecting a school which implements academic intensive care units and no-zero grading policies at the high school level, the primary investigator should consider a school district which began the implementation of these programs and policies beginning at the middle school level. This would allow for data to be collected from students who have had access and have been part of these programs and policies for extended periods. By doing so, the data collected from both the surveys and interviews could be more enriching. For this study, there were numerous neutral responses to questions or not very well thought out responses as many of the freshmen students had only been exposed to academic intensive care unit and no-zero grading policies for a few months at the time of the study. Also, by selecting a school which has implement academic intensive care units and no-zero grading policies starting at an earlier age may yield different results in future studies.

For this study, very little research was conducted into subgroups pertaining to student ability groups. One of the research questions directly related to academic differences and the amount of late work. However, in the future, this could be explored in more detail. By looking into these subgroups, further information can be inferred from the data and can help determine the impact academic intensive care units and no-zero grading policies have on each ability group of students and whether those same trends are represented in the same ability groups in a school which does not implement academic intensive care units and no-zero grading policies.

Another gap observed during this study was the connection between academic intensive care units and no-zero grading and student achievement in the classroom. It could be informative to test for a relationship between student achievement in the

classroom and academic intensive care units and no-zero grading policies. This research could help change how academic intensive care units and no-zero grading policies are implemented in the future.

An additional recommendation for future research is to determine if student and teacher perceptions of academic intensive care units impact the implementation of the programs and, in turn, affect student achievement. This study could show a connection between student and teacher perceptions of academic intensive care units and student achievement. This study could provide a venue for student and teacher buy-in, attitudes, and perceptions to be analyzed. This study would add rich research to already existing research on academic intensive care units.

The last recommendation for future study would be to include several schools in a wide geographical area. Half of those schools should implement academic intensive care units, while the other half should not. This expansion would open up the sample size and determine if a larger sample yielded different results. If there are different results regarding perceptions or student achievement, further research into why these variances occurred would add to the study and fill gaps in prior research.

Summary

This study was conducted to determine if academic intensive care units and no-zero grading policies allow for higher student achievement on state EOC assessments among high school students. Throughout the study, data were collected and analyzed using a mixed-methods approach. The data provided statistical findings to the study, which helped determine the study's conclusions. A summary of the key elements of the study is described below.

After determining the purpose of the study, the primary investigator developed five research questions to guide the study. After determining the research questions, a sample population was chosen. For this study, two separate educational institutions were selected. High School A implements academic intensive care units and no-zero grading policies, and High School B does not implement either program or policy. Each school was sent a census survey for both teachers and students requesting volunteers to participate in the study. An explanation of the study was sent as well as consent and assent forms for students and teachers.

Following the surveys, 12 students were selected to participate in an interview using a stratified random sample from each school individually. The stratified sample consisted of three performance strata: low achieving, average achieving, and high achieving students. Three students were randomly selected per performance strata. Similar to the students, three teachers were selected to participate in an interview using a stratified random sample as well. The stratified sample consisted of three performance strata: classes taught below grade level, classes taught on grade level, and advanced classes taught above grade level.

After interviews were conducted, archival data, which are housed on the MODESE website, were also analyzed. The archival data retrieved from the MODESE were EOC assessment results from both educational institutions from the 2016–2017, 2017–2018, and 2018–2019 school years. In addition to the EOC assessment results, the MAP mean scale scores were also compared and analyzed from both schools.

During the data analysis composed of student surveys, student interviews, teacher surveys, teacher interviews, and archival data from the MODESE, statistical tests were

conducted. The standard deviations and variances were calculated. Additionally, paired two-tailed *t*-tests were run since the populations were smaller than 30. If $p < 0.05$, the null hypothesis was rejected. However, if $p > 0.05$, then the null hypothesis was not rejected without considering the alternate hypothesis.

The first data to be analyzed were student surveys. The findings from the student surveys indicated more students from High School A felt as if academic intensive care units provide no benefit to students. However, when combining the two sample populations, a majority of students believed academic intensive care units provide benefits to students. There were no statistical data indicating students from High School A or High School B firmly believed students used academic intensive care units for the correct educational purposes. No students from High School B believed academic intensive care units do not prepare students properly for higher achievement on EOC assessments. In contrast, most High School A students believed academic intensive care units do not prepare students properly for higher achievement on EOC assessments.

The findings from the student interviews were clear; more students have missing assignments at High School A, which implements academic intensive care units and no-zero grading policies. The main reason provided by the students who attend High School A indicated only having missing assignments because it is allowed and late work had no penalty. Most students who attended a school with academic intensive care units and no-zero grading policies did not feel pushed to try their best academically. Additionally, 41.67% of students who did not attend a school with academic intensive care units believed they would have more missing assignments if they were at a school which implemented these programs.

The findings from teacher surveys alluded to a predominant number of teachers who work at High School A who believed academic intensive care units and no-zero grading policies provided no benefits. In contrast, most High School B teachers felt the programs and policies would provide benefits to students. When asked if academic intensive care units properly prepare students for higher academic achievement on state EOC assessments, most teachers at High School A felt they did not, while most teachers at High School B thought they would. Overall, High School A teachers, who implemented academic intensive care units, had a more negative perception of academic intensive care units and no-zero grading policies than teachers at High School B.

The findings from the teacher interviews were connected directly to the findings from the teacher surveys. Teachers at High School A did not observe higher achievement on EOC exams or improvements in class. Teachers at High School B believed their students would benefit from academic intensive care units and no-zero grading policies. However, High School B teachers strongly believed the practices they already have in place would yield higher achievement results than an academic intensive care unit would.

Upon analyzing the archival data, there was no statistical evidence to support academic intensive care units promote higher student achievement on EOC assessments. The MAP mean scale was analyzed as well as student achievement levels. When comparing both analyses, the same trend lines were observed. Thus, the null hypothesis was be rejected.

The evidence from statistical data analyzed from student and teacher surveys, student and teacher interviews, and archival data supported the conclusion of this study. The referral to the study research questions also helped to develop the conclusion. With

no statistical differences noted and $\alpha > 0.05$, the null hypotheses were not rejected. This resulted in the conclusion that academic intensive care units and no-zero grading policies at the high school level do not result in students having higher achievement levels on state EOC assessments.

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Appendix A

Survey Questions for High School A and High School B Students:

Academic intensive care units (ICU) is a system that allows students to receive support to complete work in order to reduce the number of missing assignments and improve work quality and student learning.

1. Does your school or did your school have an ICU program?

   Yes No

2. Do you feel that the ICU program is beneficial to students? Why? Why not?

   Yes No

   _____

   _____

   _____

3. Do you feel students do/would take advantage of having an ICU program implemented in your school? Why or Why not?

   Yes No

   _____

   _____

   _____

4. On a scale of 1-5, 5 as the highest, do you feel students do/will use an ICU program for the correct educational purposes?

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

5. On a scale of 1-5, 5 as the highest, how well do you feel the ICU program properly prepares you for higher academic achievement on state EOC assessments?

1	2	3	4	5
very unprepared	unprepared	neutral	prepared	very prepared

6. On a scale of 1-5, 5 as the highest, how do you feel the ICU program prepared you to be a successful student in the classroom?

1	2	3	4	5
very unprepared	unprepared	neutral	prepared	very prepared

Appendix B

Survey Questions for High School A Teachers:

Academic intensive care units (ICU) is a system that allows students to receive support to complete work in order to reduce the number of missing assignments and improve work quality and student learning.

1. Does your school or has your school implement(ed) an ICU program?

   Yes No

2. Do you think the ICU program is beneficial to students? Why or why not?

   Yes No

   _____

   _____

   _____

3. Do you feel the ICU program properly prepares your students for higher academic achievement on state EOC assessments? Please explain.

   Yes No

   _____

   _____

   _____

4. Do you feel students do/would take advantage of having an ICU program implemented in your school? Why or Why not?

   Yes No

   _____

   _____

   _____

5. On a scale of 1-5, 5 as the highest, do you feel students do/will use an ICU program for the correct educational purposes?

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

6. On a scale of 1-5, 5 as the highest, how well do you feel the ICU program properly prepared your students for higher academic achievement on state EOC assessments?

1	2	3	4	5
very unprepared	unprepared	neutral	prepared	very prepared

7. On a scale of 1-5, 5 as the highest, how do you feel the ICU program prepared your students to be a successful in the classroom?

1	2	3	4	5
very unprepared	unprepared	neutral	prepared	very prepared

Appendix C

Survey Questions for High School B Teachers:

Academic intensive care units (ICU) is a system that allows students to receive support to complete work in order to reduce the number of missing assignments and improve work quality and student learning.

1. Have you ever heard of the ICU program?

   Yes No

2. On a scale of 1-5, 5 being the highest, do you feel your students would benefit if your school began implementing an ICU program?

   1 2 3 4 5

   strongly disagree disagree neutral agree strongly agree

3. What benefits do you see if your school were to implement an ICU program?

   _____

   _____

   _____

4. What implications do you see if your school were to implement an ICU program?

   _____

   _____

   _____

5. Do you feel the ICU program properly prepares your students for higher academic achievement on state EOC assessments? Please explain.

Yes No

_____

_____

_____

6. Do you feel students do/would take advantage of having an ICU program implemented in your school? Why or Why not?

Yes No

_____

_____

_____

7. On a scale of 1-5, 5 as the highest, do you feel students do/will use an ICU program for the correct educational purposes?

1 2 3 4 5

strongly disagree disagree neutral agree strongly agree

8. On a scale of 1-5, 5 as the highest, how well do you feel the ICU program properly prepares your students for higher academic achievement on state EOC assessments?

1 2 3 4 5

very unprepared unprepared neutral prepared very prepared

9. On a scale of 1-5, 5 as the highest, how do you feel the ICU program prepares your students to be a successful in the classroom?

1	2	3	4	5
very unprepared	unprepared	neutral	prepared	very prepared

Appendix D

Teacher Interview Questions for High School A:

1. Have you noticed any changes over the past school years in your students' academic achievement since implementing the ICU program?
2. If yes, what types of changes? If no, has their achievement remained the same with no change?
3. How does your school implement the ICU program? Explicitly, what procedures are in place?
4. What are your thoughts on using an ICU program to increase student achievement?
5. Based on your experience, does the ICU program work on achievement levels of students? Ex: lower level, grade level, and advanced.
6. Do you feel schools should continue to implement the ICU program or adopt the ICU program to help increase student achievement? Why or why not?
7. Is there any other insight you would like to elaborate on based on the ICU program implemented in your school?

Appendix E

Teacher Interview Questions for High School B:

1. Are you familiar with the ICU program?
2. If your school were to implement the ICU program, do you feel your students would benefit? Why or why not?
3. What are your thoughts on using the ICU program to increase student achievement?
4. What students do you feel would benefit the most from implementing the ICU Program?
5. Do you feel schools should continue to implement the ICU program or adopt the ICU program to help increase student achievement? Why or why not?
6. Is there any other insight you would like to elaborate on based on the ICU program implemented in your school?

Appendix F

High School A Student Interview Questions:

1. What is your current overall GPA?
2. Do you submit late work?
3. If yes, what classes do you submit late work in?
4. If yes, what are your reasons for submitting late work?
5. If no, why do you not submit late work since there is no penalty for late work?
6. Does the implementation of ICU push you to try your best academically? Why or why not?

Appendix G

High School B Student Interview Questions:

1. What is your current overall GPA?
2. Do you submit late work?
3. If yes, what classes do you submit late work in?
4. If yes, what are your reasons for submitting late work?
5. If no, would you have more late assignments if there were no penalty for late work?

Appendix H

Site Permission Letter

Date:

High School A

RE: Permission to Conduct Research Study

Dear Superintendent:

I am writing to request permission to conduct a research study at your school district. I am currently enrolled in the doctoral program at Lindenwood University and am in the process of writing my doctoral dissertation. The study is entitled: *Academic Intensive Care Units: What is the Impact on Student Achievement?*

I hope that the school administration will allow me to recruit both student and educator participants from the school to anonymously complete a three-question survey and short interview of six students and three educators (copies attached). I will be giving a consent form to be signed by their parent or guardian (copy enclosed) and returned to the primary investigator at the beginning of the survey process. Educators who volunteer to participate will also be given consent forms. However, those consent forms will be on the first section of their survey.

If approval is granted, student participants will complete the survey in a classroom during advisory or other quiet setting on the school site. The survey process should take no longer than five minutes. Educator participants would complete the survey either at home or on the school site during their plan time. The survey results will be calculated for the dissertation, and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

Your approval to conduct this study will be greatly appreciated. I will follow up with an email or an in-office visit next week and would be happy to answer any questions or concerns that you may have at that time. You may contact me at my email address: blc267@lindenwood.edu.

If you agree, kindly sign below and return the signed form in the enclosed self-addressed envelope. Alternatively, kindly submit a signed letter of permission on your school district's letterhead acknowledging your consent and permission for me to conduct this survey/study at your school district.

Sincerely,

Brandi Compass
Lindenwood University

Approved by:

_____	_____	_____
Printed name and title	Signature	Date

Appendix I

Site Permission Letter

Date:

High School B

RE: Permission to Conduct Research Study

Dear Superintendent:

I am writing to request permission to conduct a research study at your school district. I am currently enrolled in the doctoral program at Lindenwood University and am in the process of writing my doctoral dissertation. The study is entitled: *Academic Intensive Care Units: What is the Impact on Student Achievement?*

I hope that the school administration will allow me to recruit both student and educator participants from the school to anonymously complete a three-question survey and short interview of six students and three educators (copies attached). I will be giving a consent form to be signed by their parent or guardian (copy enclosed) and returned to the primary investigator at the beginning of the survey process. Educators who volunteer to participate will also be given consent forms. However, those consent forms will be on the first section of their survey.

If approval is granted, student participants will complete the survey in a classroom during advisory or other quiet setting on the school site. The survey process should take no longer than five minutes. Educator participants would complete the survey either at home or on the school site during their plan time. The survey results will be calculated for the dissertation, and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

Your approval to conduct this study will be greatly appreciated. I will follow up with an email or an in-office visit next week and would be happy to answer any questions or concerns that you may have at that time. You may contact me at my email address: blc267@lindenwood.edu

If you agree, kindly sign below and return the signed form in the enclosed self-addressed envelope. Alternatively, kindly submit a signed letter of permission on your school district's letterhead acknowledging your consent and permission for me to conduct this survey/study at your school district.

Sincerely,

Brandi Compass
Lindenwood University

Approved by:

_____	_____	_____
Printed name and title	Signature	Date

Appendix J

Letter of Participation Student/Parent (Survey)

Date:

RE: Letter to Participate in Survey

Dear Guardian:

I am writing to request permission for your participation in a research study being conducted in your school. I am currently enrolled in the doctoral program at Lindenwood University and am in the process of writing my doctoral dissertation. The study is entitled: *Academic Intensive Care Units: What is the Impact on Student Achievement?*

I am writing to ask if you would be willing to give permission for me to ask your son/daughter if he/she would be willing to take part in my research.

This will involve having your son/daughter complete a six-question survey to determine how he/she feels about an academic intensive care program being implemented within his/her school.

If your permission is granted, student participants will complete the survey in a classroom during advisory or other quiet setting on the school site. The survey process should take no longer than five minutes. The survey results will be calculated for the dissertation, and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

This research has been approved by Lindenwood University, the IRB Board, and your school district. The project is being overseen by Dr. Grover at Lindenwood University.

If you agree to have your son/daughter participate in this research, kindly sign below and return the signed form back to your son/daughter's advisory teacher. Many thanks in advance for your son/daughter's participation in this study. If you would like further information on the study, please let me know. I can be contacted at blc267@lindenwood.edu.

Sincerely,

Brandi Compass
Lindenwood University

Permission granted by:

_____	_____	_____
Printed name and title	Signature	Date
Student Signature:		
_____	_____	_____
Printed name	Signature	Date

Appendix K

Letter of Participation Educator (Survey)

Date:

RE: Letter to Participate in Survey

Dear Educator:

I am writing to request permission for your participation in a research study being conducted in your school. I am currently enrolled in the doctoral program at Lindenwood University and am in the process of writing my doctoral dissertation. The study is entitled: *Academic Intensive Care Units: What is the Impact on Student Achievement?*

I am writing to ask if you would be willing to take part in my research.

This will involve you completing a seven to nine question survey to determine how you feel about an academic intensive care program being implemented within your school.

If your permission is granted, educator participants would complete the survey either at home, on the school site during their plan time or down time. The survey process should take no longer than five minutes. The survey results will be calculated for the dissertation, and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

This research has been approved by Lindenwood University, the IRB Board, and your school district. The project is being overseen by Dr. Grover at Lindenwood University.

If you agree to participate in this research, kindly sign below and return the signed form back to your school counselor. Many thanks in advance for your participation in this study. If you would like further information on the study, please let me know. I can be contacted at blc267@lindenwood.edu.

Sincerely,

Brandi Compass
Lindenwood University

Permission granted by:

_____	_____	_____
Printed name and title	Signature	Date

Appendix L

Letter of Participation Student/Parent (Interview)

Date:

RE: Letter to Participate in Interview

Dear Guardian:

I am writing to request permission for your participation in a research study being conducted in your school. I am currently enrolled in the doctoral program at Lindenwood University and am in the process of writing my doctoral dissertation. The study is entitled: *Academic Intensive Care Units: What is the Impact on Student Achievement?*

I am writing to ask if you would be willing to give permission for me to ask your son/daughter if he/she would be willing to take part in my research.

This will involve having your son/daughter participate in a six to seven question interview to determine how he/she feels about an academic intensive care program being implemented within his/her school.

If your permission is granted, student participants will be interviewed either on campus in a private room or other quiet setting on the school site during advisory or off campus virtually via Zoom. The interview process should take no longer than ten minutes. The interview results will be calculated for the dissertation, and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

This research has been approved by Lindenwood University, the IRB Board, and your school district. The project is being overseen by Dr. Grover at Lindenwood University.

If you agree to have your son/daughter participate in this research, kindly sign below and return the signed form back to your son/daughter's advisory teacher. Many thanks in advance for your son/daughter's participation in this study. If you would like further information on the study, please let me know. I can be contacted at blc267@lindenwood.edu.

Sincerely,

Brandi Compass
Lindenwood University

Permission granted by:

_____	_____	_____
Printed name and title	Signature	Date

Student Signature:

_____	_____	_____
Printed name	Signature	Date

Appendix M

Letter of Participation Educator (Interview)

Date:

RE: Letter to Participate in Interview

Dear Guardian:

I am writing to request permission for your participation in a research study being conducted in your school. I am currently enrolled in the doctoral program at Lindenwood University and am in the process of writing my doctoral dissertation. The study is entitled: *Academic Intensive Care Units: What is the Impact on Student Achievement?*

I am writing to ask if you would be willing to give permission for me to interview you and take part in my research.

This will involve having you participate in a six to seven question interview to determine how you feel about an academic intensive care program being implemented within your school.

If your permission is granted, educator participants will be interviewed either on campus in a private room or other quiet setting on the school site during your prep or off campus virtually via Zoom. The interview process should take no longer than ten minutes. The interview results will be calculated for the dissertation, and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

This research has been approved by Lindenwood University, the IRB Board, and your school district. The project is being overseen by Dr. Grover at Lindenwood University.

If you agree to participate in this research, kindly sign below and return the signed form back to your school counselor. Many thanks in advance for your son/daughter's participation in this study. If you would like further information on the study, please let me know. I can be contacted at blc267@lindenwood.edu.

Sincerely,

Brandi Compass
Lindenwood University

Permission granted by:

_____	_____	_____
Printed name and title	Signature	Date

Appendix N

LINDENWOOD

Research Study Consent Form

Academic Intensive Care Units: What is the Impact on Student Achievement?

Note: "You" in this form refers to the minor participant. If an activity or requirement refers to the parent or guardian consenting on behalf of the minor, this will be clearly indicated.

Before reading this consent form, please know:

- Your decision to participate is your choice
- You will have time to think about the study
- You will be able to withdraw from this study at any time
- You are free to ask questions about the study at any time

After reading this consent form, we hope that you will know:

- Why we are conducting this study
- What you will be required to do
- What are the possible risks and benefits of the study
- What alternatives are available, if the study involves treatment or therapy
- What to do if you have questions or concerns during the study

Basic information about this study:

- We are interested in learning about academic intensive care units (ICU) and their effect on student achievement.
- You will be answering a series of brief survey questions and potentially participate in an interview.
- Risks of participation include the possibly of participants losing privacy and confidentiality during the data collection phase. However, this will not be shared with the school district.

LINDENWOOD

Research Study Consent Form

Academic Intensive Care Units: What is the Impact on Student Achievement?

You are asked to participate in a research study being conducted by Brandi Compass under the guidance of Dr. Kathy Grover at Lindenwood University. Being in a research study is voluntary, and you are free to stop at any time. Before you choose to participate, you are free to discuss this research study with family, friends, or a physician. Do not feel like you must join this study until all of your questions or concerns are answered. If you decide to participate, you will be asked to sign this form.

Why is this research being conducted?

We are doing this study to determine if Academic Intensive Care Units have an impact on student achievement. We will be asking about 2,583 other people to answer these questions.

What am I being asked to do?

As a participant, you will be asked to answer a series of electronic survey questions. Your responses will remain anonymous. Additionally, you may be randomly selected to participate in a short face to face interview with the researcher at your school.

How long will I be in this study?

The total study participation will not last very long. The survey participation will last approximately 5 minutes. If selected for the interview, it shall last approximately 10 minutes.

Who is supporting this study?

This study is not being funded by any agency.

What are the risks of this study?

- Privacy and Confidentiality:

  We will not be collecting any information that will identify you.

  We will be collecting data from you using the internet. We take every reasonable effort to maintain security. The surveys will be sent to you via your school email. Survey links will be secure through Qualtrics. It is always possible that information during this research study may be captured and used by others not associated with this study. Since you may be selected to participate in the interview, there are also potential risks associated with interviews. There is the possibility of your interview responses being obtained by someone outside of the study. Again, every reasonable effort to maintain security will be taken.

What are the benefits of this study?

You will receive no direct benefits for completing this survey. We hope what we learn may benefit other people in the future.

Will I receive any compensation?

You will not be receiving any compensation for participating in this study.

What if I do not choose to participate in this research?

It is always your choice to participate in this study. You may withdraw at any time. You may choose not to answer any questions or perform tasks that make you uncomfortable. If you decide to withdraw, you will not receive any penalty or loss of benefits. If you would like to withdraw from a study, please use the contact information found at the end of this form.

What if new information becomes available about the study?

During the course of this study, we may find information that could be important to you and your decision to participate in this research. We will notify you as soon as possible if such information becomes available.

How will you keep my information private?

We will do everything we can to protect your privacy. We do not intend to include information that could identify you in any publication or presentation. Any information we collect will be stored by the researcher in a secure location. The only people who will be able to see your data are: members of the research team, qualified staff of Lindenwood University, and representatives of state or federal agencies.

How can I withdraw from this study?

Notify the research team immediately if you would like to withdraw from this research study.

Who can I contact with questions or concerns?

If you have any questions about your rights as a participant in this research or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the Lindenwood University Institutional Review Board Director, Michael Leary, at (636) 949-4730 or mleary@lindenwood.edu. You can contact the researcher, Brandi Compass directly at [redacted] or blc267@lindenwood.edu. You may also contact Dr. Kathy Grover at kgrover@lindenwood.edu.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Parent or Legally Authorized Representative's Signature	**Date**
Parent or Legally Authorized Representative's Printed Name	

Signature of Principal Investigator or Designee	**Date**
Investigator or Designee Printed Name	

Appendix O

LINDENWOOD

Research Study Assent Form

What is research?

We are going to do a research study. A research study is when a researcher or doctor collects information to learn more about something. During this research study, we are going to learn more about Academic Intensive Care Units and their impact on student achievement After we tell you more about this study, we would like to ask you about being part of it.

We also will be asking about 2,583 other people to be part of this study.

What will you ask me to do?

If you choose to be part of this study, you will be asked to answer a series of electronic survey questions. Your responses will remain anonymous. Additionally, you may be randomly selected to participate in a short face to face interview with the researcher at your school.

This study is going to last approximately 5-15 minutes and then it will be over.

Will I be harmed during this study?

You will not be harmed in any way. There is always a chance for your internet survey responses to be leaked. However, I will do my best to prevent this from happening.

Will I benefit from being in this study?

You will not get anything special if you decide to be part of this study. We hope what we learn will help other children.

Do I have to be in this research?

No, you do not. If you do not want to be in this research study, just tell us. You can also tell us later if you do not want to be part of it anymore. No one will be mad at you and you can talk to us at any time if you are nervous.

What if I have questions?

You can ask us questions right now about the research study. You can ask questions later if you want to. You can also talk to someone else about the study if you want to. And you can change your mind at any time. Being in this research study is up to you.

If you want to be in this research study, just tell us. Or, you can sign your name in the blank below. We will give you a copy of this form to keep.

_____	_____
Minor Participant's Signature	**Date**
_____	
Minor Participant's Printed Name	

_____	_____
Signature of Principal Investigator or Designee	**Date**
_____	
Investigator or Designee Printed Name	

Appendix P

LINDENWOOD

Survey Research Information Sheet

You are being asked to participate in a survey conducted by Brandi Compass at Lindenwood University. We are doing this study to determine if Academic Intensive Care Units have an impact on student achievement. It will take about 5 minutes to complete this survey.

Your participation is voluntary. You may choose not to participate or withdraw at any time by simply not completing the survey or closing the browser window.

There are no risks from participating in this project. We will not collect any information that may identify you. There are no direct benefits for you participating in this study.

WHO CAN I CONTACT WITH QUESTIONS?

If you have concerns or complaints about this project, please use the following contact information:

Brandi Compass at blc267@lindenwood.edu

Dr. Kathy Grover at kgrover@lindenwood.edu

If you have questions about your rights as a participant or concerns about the project and wish to talk to someone outside the research team, you can contact Michael Leary (Director - Institutional Review Board) at 636-949-4730 or mleary@lindenwood.edu.

By clicking the link below, I confirm that I have read this form and decided that I will participate in the project described above. I understand the purpose of the study, what I will be required to do, and the risks involved. I understand that I can discontinue participation at any time by closing the survey browser. My consent also indicates that I am at least 18 years of age.

You can withdraw from this study at any time by simply closing the browser window. Please feel free to print a copy of this information sheet.

<Qualtrics Link>

Appendix Q

LINDENWOOD

Research Information Sheet

You are being asked to participate in a research study. We are doing this study to determine if Academic Intensive Care Units have an impact on student achievement. During this study you will be asked to participate in a face-to-face interview. It will take about 30 minutes to complete the interview.

Your participation is voluntary. You may choose not to participate or withdraw at any time.

There are no risks from participating in this project. There are no direct benefits for you participating in this study.

We will not collect any data which may identify you.

We will do everything we can to protect your privacy. We do not intend to include information that could identify you in any publication or presentation. Any information we collect will be stored by the researcher in a secure location. The only people who will be able to see your data are: members of the research team, qualified staff of Lindenwood University, representatives of state or federal agencies.

Who can I contact with questions?

If you have concerns or complaints about this project, please use the following contact information:

Brandi Compass at blc267@lindenwood.edu

Dr. Kathy Grover at kgrover@lindenwood.edu

If you have questions about your rights as a participant or concerns about the project and wish to talk to someone outside the research team, you can contact Michael Leary (Director - Institutional Review Board) at 636-949-4730 or mleary@lindenwood.edu.

Vita

Brandi Compass graduated from Scott City High School. She then attended Southeast Missouri State University where she earned her Bachelor of Science degree in Elementary Education with a concentration in Mathematics Education. She furthered her education by returning to Southeast Missouri State University and completing a Master of Arts degree in Elementary Education with a concentration in Mathematics and Science Education. Brandi is currently working on completing a Specialists degree in Administration through Southeast Missouri State University as well.

Brandi has been an educator for 11 years where she has had the honor of teaching a multiple of grade bands. She started her career teaching kindergarten and then transferred to teaching fifth grade. She has also taught 6–12 grade mathematics courses. Additionally, Brandi has been an adjunct instructor teaching Transitional Reading, Transitional Writing, and Instructional Technology courses. Currently Brandi is a K–8 Math Coach and works with teachers to improve their practice and enhance student achievement in the classroom.

Brandi has been honored to work with teachers on a global level. She has traveled to multiple third world countries over her summer breaks to train, mentor, coach, and guide teachers to have a more sustainable practice and to improve student achievement.