

EXPLORING THE RELATIONSHIP BETWEEN CO-CURRICULAR INVOLVEMENT AND  
GRADUATION RATES OF SPECIAL EDUCATION STUDENTS IN RURAL SETTINGS

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This is dedicated to my family. To my parents and sister who have always been my biggest supporters. To my wife Michelle and sons Tanner, Cooper, Gunner, and Ryder, this journey has always been with you at the center. You have inspired me at every moment and allowed me to accomplish my goal of becoming a better person and serving others.

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## ABSTRACT

### EXPLORING THE RELATIONSHIP BETWEEN CO-CURRICULAR INVOLVEMENT AND GRADUATION RATES OF SPECIAL EDUCATION STUDENTS IN RURAL SETTINGS

by Brady D. Flachs

High school graduation rates continue to be an area of great challenge for school leaders. The graduation rates of students with disabilities add another element of complexity for the school leaders who are continuously looking for answers and resources to aid in graduation of all students. Educational leaders need to have resources within their timely control in order to promote positive outcomes for graduation rates. School-sponsored clubs and activities can provide a solution that is within immediate control of educational leaders.

This quantitative research study was designed to investigate the relationships between the graduation rates of high school students who receive special education services and their participation in school-sponsored clubs and activities. Educational leaders need to make data-based decisions and not simply rely upon assumptions. While educational leaders may feel that student participation is beneficial, it is rare that participation numbers are tracked and reviewed. It is even more rare for someone to look closely at the educational impacts of participation. This study aimed to supply educational leaders with an intimate look at the participation of students who receive special education services and the impact it has on graduation rates.

This study was designed to be predictive of graduation rates of high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments. This study was framed by the theory of student involvement (Astin, 1984). This study targeted high school students in two selected rural school districts in Michigan. Four cohorts of data, graduating years 2013-2016, from each

school were collected and analyzed. The analysis of the data set included descriptive statistics and logistic regressions.

Results from this study indicate that GPA and participation in a school-sponsored athletic activity for students who receive special education services for a learning impairment contribute significantly to diploma status. These findings as well as recommendations from this study have implications for educational leaders. The findings of this study provide educational leaders clear rationale to support efforts to increase participation of students with disabilities in school-sponsored clubs and activities.

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## CHAPTER I

### INTRODUCTION

Graduating high school with a diploma is a life event that has been accepted as a rite of passage for American youth. Smith, Manuel, and Stokes (2012) conclude, “graduation marks a milestone for both individuals and society” (p. 57). High school graduation signifies that a student is prepared for the next challenge of continuing education or employment that awaits them. Additionally, high school graduates without a college degree earn almost 30% more than those who do not graduate (Bureau of Labor Statistics, 2014). This singular achievement at an early age in an individual’s lifespan has significant ramifications for decades to come.

High school graduation has an immense impact on a person’s life. Graduation can be pivotal to future education and job opportunities that contribute to a person’s identify and lifestyle for the remainder of their lives. Unfortunately, if an individual fails to graduate, this too can impact their lives in a negative fashion for the remainder of their lives. High school graduation is indeed a high stakes event that has lasting impacts.

High school graduation has lasting impacts on a person’s life well after the high school experience is over. Given the significance that high school graduation has on a person’s life, it is imperative that high school graduation rates be very high. According to the Michigan Department of Education, the four-year cohort graduation rate for all students in the 2013-14 school year was 78.58% (MI School Data: Disability Snapshot, 2015). This indicates that almost 80% of students were graduating from Michigan high schools with a diploma within four years. Sadly, not all students in Michigan high schools graduate with the same rate of completion. Data from the 2013-14 Michigan Special Education Public Reporting- Indicator Report cites that students who receive special education services in Michigan high schools have a four-year

cohort graduation rate of less than 54%. This falls far short of the state of Michigan established target rate of greater than 80%. These data indicate that almost half of the students in Michigan who receive special education services do not graduate in four years with a diploma. When the data of students who receive special education services is compared against that of all students there is a 24% point difference in four-year graduation rates.

The 2013-14 Michigan Special Education Public Reporting- Indicator Report also indicates that almost 15,000 students who receive special education services were eligible to graduate within their four-year cohort. This means that in 2014, almost 7,000 Michigan students were unable to advance to the next stage of their education or employment due to the fact that they have not graduated with a high school diploma. In other words, students who have not graduated high school are not able to complete the application for employment or further education due to the gravity that surrounds not graduating high school. The future progress of these individuals hits an immediate and abrupt roadblock.

Graduation rates of students who receive special education services are an area of immense concern given their link to future education and employment options. Michigan Lieutenant Governor Brian Calley recently remarked, “All children deserve a chance to lead self-determined and independent lives” (Lawley, 2015, p. 2). In order to ensure that children have the ability to pursue a self-determined and independent life, schools must ensure they have the skills and credentials necessary to be able to move forward in career and future education. The Georgetown University Center on Education and the Workforce found that obtaining a high school diploma meant a person would add 33% more to their lifetime earnings than a person who did not (Carnevale, Rose, & Cheah, 2011). This study further adds that there is a steep economic penalty if a student does not graduate from high school. This economic penalty can mean almost

\$9,000 per year in wages lost. The significant difference in earning potential that accompanies a high school graduate verse a non-graduate has impact on the individual as well as the society and community in which they live and work. Carnevale, Rose, and Cheah also indicate, “Having some postsecondary education, even without earning a degree, adds nearly one-quarter of a million dollars to lifetime earnings” (p. 4). Graduation with a diploma is a gateway to educational opportunity as well as increased earning potential.

Michigan schools need to address the current graduation rates in an effort to maximize positive future outcomes for students receiving special education services. Data from the 2013-14 school year indicates that there are over 208,000 K-12 students in the state of Michigan who receive special education services (MI School Data: Disability Snapshot, 2015). This comprises almost 13% of the K-12 school population. Current graduation data indicates that almost half of these students will not graduate with a diploma in four years and thus not be moving on to further education and employment that requires a minimum credential of a high school diploma. It is simply unacceptable and unethical to allow this many students to fail in their pursuit of continued education and employment.

By looking at graduation data, especially those of students who receive special education services, K-12 school leaders should be inspired to action. School district leaders must utilize the resources at hand to impact graduation rates and therefore support students to a path of future success. One relatively inexpensive area of resources that school leaders have control over is school-sponsored clubs and activities. Each school year, time, money, and resources are allocated to determine the amount and intensity of these clubs and activities. If there is a link between club and activity participation and graduation rates of students who receive special

education services, then school leaders are empowered to act in an effort to create an immediate and direct positive impact on student outcomes.

Participation in a school-sponsored club or activity has many benefits for students. Zaff, Moore, Papillo, and Williams (2003) concluded, “consistent participation in extracurricular activities from 8<sup>th</sup> grade through 12<sup>th</sup> grade predicts academic achievement and prosocial behaviors in young adulthood” (p. 620). A study conducted by the National Center for Education Statistics (1995) found that extracurricular participation was positively associated with the success indicators that included consistent attendance, academic achievement, and continuing education after high school. The benefits and impacts of participation in extracurricular activities are not limited to these outcomes. The National Longitudinal Transition Study-2 (NLTS2) indicated that participation in extracurricular activities is an indicator for more active friendships (Cadwallader, Wagner, & Garza, 2003). This is evidenced by the fact that students who participate in extracurricular activities have a greater opportunity to engage with their peers and adults in a structured social environment. In addition to this, Gerber (1996) found that school-based extracurricular activities have a stronger impact on academic achievement than non-school based activities. This indicates that school district leaders are uniquely situated to positively impact desired student outcomes by encouraging development of extracurricular activities and participation in these activities. Howard and Ziomek-Daigle (2009) suggested that school leaders use extracurricular activities to help academic achievement of uninvolved or off task students. Participation in school-sponsored clubs and activities is a tool for educational leaders to utilize in leveraging positive outcomes for students who are otherwise difficult to engage.

This research study aimed to aid school district leaders by investigating a relationship between student involvement and graduation rates. More specifically this quantitative research

study investigated relationships between the graduation rates of rural high school students who receive special education services and their participation in school-sponsored clubs and activities.

For the purpose of this study, school-sponsored clubs and activities will be defined as activities in which the local school district leaders allocate financial resources to support. This also included activities and clubs that occur outside of the traditional school day. School district Schedule B contracts were utilized to determine what activities and clubs the school allocates financial resources towards. Student involvement in these activities and clubs require that students participate in events outside of the schools daily scheduled academic time.

#### Problem Statement

In 1975, the Individuals with Disabilities Education Act (IDEA) carved out a new path for the education of all children, in particular those children with disabilities. Kaye and Aserind (1979) describe the passing of IDEA as, “explosive legislation” (p. 137). IDEA created a legal initiative to ensure students with a disability were given a free and appropriate public education and equal access to a high school diploma.

Special education services look very different in modern schools when compared to those of 1975. Unfortunately, there are still drastic differences in graduation rates when comparing students who receive special education and that of their general education peers. Graduation data from the 2014 Michigan Annual Performance Report indicates that students who receive special education services in Michigan high schools have a four-year cohort graduation rate of 54% while general education students graduate at a rate of over 78%.

Education of all children is a right that is afforded to all students through legislation such as IDEA. However, graduation rates are drastically different for students who receive special education services versus their general education peers. This problem negatively impacts students with disabilities in their pursuit for additional education opportunities and future employment.

The education of students in rural settings can provide additional challenges to educational leaders. Remote locations and the large size of many rural districts create unique challenges for rural education (Berry & Grandville, 2013). Resources and people are spread out and harder to coordinate due to the challenging logistics of rural areas. According to the National Center for Educational Statistics (2013), in 2010-11 one-third of all public schools were located in rural areas. Additionally, about one-quarter of all public school students were enrolled in a rural school. The additional challenges presented by rural school districts places additional stressors on educational leaders. Many resources are not in proximity or simply not available to leaders. Having a smaller toolbox for one to employ in problem solving creates increased responsibilities for educational leaders to evaluate and employ the resources they do have in their systems and are able to control.

School leaders are charged with the mission to improve results for students given limited resources. State testing, national and state curriculum, teacher certification restrictions, and staff contracts are all areas of concern for school leaders and provide tedious hurdles for leaders to maneuver. The complexity of this issue means that school leaders need concrete strategies that they can implement in real-time to help achieve desired student results. One area that school leaders do have immediate control over is resource allocation to school-sponsored clubs and activities. Individual schools have discretion over how and where to use resources when

considering availability and intensity of school-sponsored clubs and activities. School leaders have influence to control the variety and frequency of opportunity for students to engage in school-sponsored clubs and activities. School leaders need to know what impact this influence can have on student achievement. Student graduation is a cumulative result of achievement. Any strategy that a school leader can use to develop positive impacts for students is a powerful tool in their toolbox. This is increasingly important in the case of students who receive special education services. This population of students has profound struggles with high school graduation and is in desperate need of ways to increase their current and future successes in high school.

#### Purpose and Focus

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. This study was framed by the theory of student involvement (Astin, 1984) by examining existing school data records to look for relationships between students who receive special education services and also participate in a school-sponsored club and/or activity as well as students who receive special education services and do not participate in a school-sponsored club/and or activity and their respective graduation rates. In addition, participation in a school-sponsored clubs and activities was broken into three categories; academic, social, and physical. Each of these categories was reviewed and the graduation rate of students who received special education services and participated in each was examined.

Student involvement in a school-sponsored club and activities as well as graduation rates has been studied in the past (March, 1992; Zaff, Moore, Papillo, & Williams, 2003). However, participation and involvement in conjunction with students who receive special education services and their respective graduation rates is an area that is not well developed. This study will examine each of these areas to investigate if a relationship is found.

### Research Questions

This study focused on graduation rates of high school students who receive special education services in the areas of LD, EI, and OHI. The following two research questions guided this study:

1. To what degree are high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired participating in school-sponsored clubs and activities (i.e., academic, physical, and social)?
2. What are the effects of participation in school-sponsored clubs and activities (i.e., academic, physical, and social) for high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired on graduation rates.

### Theoretical Framework

The theoretical framework grounding this study was student involvement theory (Astin, 1984). This theory acted as a guiding framework for analyzing the relationship between the graduation rates of high school students who receive special education services and their participation in school-sponsored clubs and activities. “Student involvement theory argues that a

particular curriculum, to achieve the effects intended, must elicit sufficient student effort and investment of energy to bring about the desired learning and development” (Astin, 1999, p. 522). Student participation in school-sponsored clubs and activities represents the student investment of effort and energy in this study. The desired learning and development is student graduation from high school with a diploma. According to a longitudinal study conducted by Astin (1975), college students who participated in social or extracurricular activities are less likely to dropout of school. Although not focused on college students, this theory was applied to this study with a focus being placed on high school students who receive special education services.

### Assumptions

The goal of this study was to examine the relationship between the graduation rates of high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. It is assumed that sources of secondary data have accurately indicated student graduation results as well as indications of student participation in a school-sponsored club or activity.

Another assumption of this study is that the indication of a student’s participation in a school-sponsored club or activity means the student fully participated for the entirety of the club or activities season or scheduled meeting time. Student involvement theory (Astin, 1999) indicates that a student needs to invest time and energy into the club or activity in order for a desired learning outcome to be achieved. This indicates that a student needs to fully participate in the club or activity in order for impact to occur.

## Significance of the Study

Education is a vehicle to ensure that our society will continue to prosper for generations to come. The design of the American education system is unique in its belief that all students can learn and grow. Graduation with a diploma from a K-12 school is a key to further education and/or employment. This study helps to identify a relationship between the graduation rates of students who receive special education services and involvement in extracurricular activities. When all of the factors of this study are considered, it is evident that the results of this study can benefit many different stakeholder groups. Students, parents, teachers, activity leaders, educational leaders, and community members all stand to benefit from positive student outcomes.

The intended purpose of this quantitative study was to provide data to school boards, school leaders, school club and activity leaders, students, and community members about the relationship between graduation rates of rural students who receive special education services and participation in a school-sponsored club or activity. As a result of this study, K-12 school systems now have data to aid in making curricular decisions that may positively impact numerous student's future outcomes and the overall climate of the school. It may be realized that additional extracurricular choices in a variety of areas may be needed as a result of this study. This may lead to further discussion and cohesion between students, families, school staff members, school board members, and extracurricular staff members. The results of this study positively impacts all students, staff members, and school and community climates in the immediate future as well as for decades to come.

## Summary

High school graduation signifies a significant step in a student's life. This milestone is not simply symbolic in nature. Graduation of high school with a high school diploma will allow for an individual to move forward in their career and education and have access to pursuits that simply are not available without attainment of a high school diploma. High school graduation is a critical gateway to future opportunities and fiscal gain for students.

Federal legislation such as the Individuals with Disabilities Education Act (IDEA) is designed to provide access to education for all students. Although, even with legislation in place, students who receive special education services are graduating at a rate that is more than 24% behind their general education peers (Michigan Annual Performance Report, 2014). This creates a severe issue when the importance of a diploma and future outcomes is examined. The Georgetown University Center on Education and the Workforce found that obtaining a high school diploma meant a person would add 33% more to their lifetime earnings than a person who did not (Carnevale, Rose, & Cheah, 2011). This data indicates staggering results for both students and the future of the communities in which they live and work. Special education students who do not graduate are not the only stakeholders impacted by poor high school graduation rates. Communities and families shoulder future burdens when a student does not graduate with a high school diploma.

Educators must face the challenge of creating resources and supports that help facilitate graduation of all students, especially those receiving special education services. School district leaders need to be empowered with data that helps guide their decision making to improve graduation rates of students with disabilities. There are resources available that school district leaders have immediate control over. School-sponsored clubs and activities is an area that

school leaders can quickly influence. This study provides district leaders with information that can be used to guide curricular choices and positively impact the graduation rates of student with disabilities.

## Definition of Terms

*Academic Activities:* This is a school-sponsored club or activity that is tied directly into a curriculum content area in its primary focus. This club or activity should build upon a class or content area that is currently offered in the schools regular curricular day where academic credit is offered. These clubs or activities can include content that is an extension of the core curriculum offered at that school.

*Athletic Activities:* This is a school-sponsored club or activity that requires physical activity and competition in its primary focus. Athletic activities typically schedule practices and competition dates and may compete in Michigan High School Athletic Association (MHSAA) tournaments.

*Emotional Impairment (EI):* Classified as behavioral problems, mostly in the affective domain, over a long period of time that adversely impacts a child's ability in the educational environment. (Individuals with Disabilities Education Act, 2004, § 300.8)

*Four-Year Cohort:* A four-year graduation rate is calculated by tracking freshman that enrolled for the first time in ninth grade in a given year and then adding four calendar years to that date. (Michigan Center for Educational Performance and Information, 2008).

*High School Graduation:* This definition is specific to graduation in the state of Michigan. Michigan is a one diploma state meaning that each local school board or board of directors is able to offer one standard diploma to each individual that meets the requirements of the Michigan Merit Curriculum (MMC) as established by the Michigan Revised School Code, Act 451 of 1976.

*Learning Disabilities (LD):* Classified by a disorder in one or more of the psychological processes involved in understanding or language. (Individuals with Disabilities Education Act, 2004, § 300.8)

*Otherwise Health Impaired (OHI):* Classified as a child who has limited alertness in the educational environment as a result of a chronic or acute health problem. (Individuals with Disabilities Education Act, 2004, § 300.8)

*Rural School District:* Rural school districts are classified by the subcategories of fringe, distant, and remote as determined by the National Center for Educational Statistics urban-centric locale categories.

*Special Education:* According to § 300.39 of the Individuals with Disabilities Education Act of 2004 (IDEA) special education is specifically designed instruction to meet the needs of a child with a disability.

*School-Sponsored Club or Activity:* A club or activity that the school district provides financial support for. This may include a physical space to meet, plan, practice, play, and a paid adult advisor. Clubs or activities will be listed and found in the school district employee contract. Three categories of clubs or activities are included in this definition: academic, social, and physical.

*Student Involvement Theory:* “ The Theory of student involvement argues that a particular curriculum, to achieve the effects intended, must elicit sufficient student effort and investment of energy to bring about the desired learning and development” (Astin, 1999, p. 522)

*Student with a Disability:* a child evaluated in accordance with §§ 300.34- 300.11 of the Individuals with Disabilities Education Act of 2004 (IDEA) and found to have a disability in one of the 13 categories and the disability requires special education and related services.

*Social Activities:* This is a school-sponsored club or activity that is neither academic nor physical in its primary focus. The goal of these activities shall be to provide a social outlet for students to gather together for a similar interest or outcome.

## CHAPTER II

### LITERATURE REVIEW

#### Introduction

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. The focus of the study was to examine the impact that extracurricular involvement, in the three categories of athletic, academic, and social, have on graduation rates of students who receive special education services for the disability areas listed above.

Students who receive special education services are guaranteed access to the same education as their general education peers thanks to legislation such as the Individuals with Disabilities Education Act (IDEA). Access to equal education and services continues to be a struggle. Smith, Palloway, Doughty, Patton, and Dowdy (2016) claim that students with disabilities are the last major group of people to be granted equal access to educational opportunities. Providing the necessary supports to students with disabilities is an area that needs additional exploration and attention if equal access is to be achieved in public education.

Graduation from high school with a diploma is a pivotal moment in the life of most people. Unfortunately, the graduation rates of students who receive special education services are far below their peers. Graduation data from the 2013-14 Michigan Special Education Public Reporting- Indicator Report indicates that students who receive special education services in Michigan high schools graduate at a rate of 53.6%. This is 24% points below their general

education peers when looking at students in the same four-year cohort. The state of Michigan has recommended a target graduation rate for students with disabilities greater than or equal to 80%. The general education four-year cohort graduation numbers do not meet this standard let alone the special education four-year cohort graduation numbers.

Educators are called to action when they see a problem with significant ramifications. Graduation of students in public high schools in Michigan is a primary function of schools. When district leaders see that graduation rates of all students, especially those who receive special education services are not meeting expectations immediate action is necessary. District leaders need to use resources within their control to positively impact graduation results.

Student involvement theory (Astin, 1999) suggests a positive relationship between students who are involved in extracurricular activities and a student's persistence in their education. Providing students who receive special education services with opportunities to participate in extracurricular activities can create a strategy for district leaders to increase graduation rates. Using this theory, district leaders can have immediate impact on student involvement in a wide variety of clubs and activities. This can lead to increased student persistence and higher graduation numbers of Michigan high school students.

#### Purpose and Criteria

This review of the literature was based upon special education services, graduation rates, and student involvement in extracurricular activities. Each of these areas will be described in detail and their interrelated nature will be discussed. Student involvement theory (Astin, 1984) will be examined in order to further illustrate the link between each of these areas.

By examining the relationship between rural special education students, graduation rates, and student involvement, this study provides an interrelated vision to school administrators, faculty, and school boards. The vision created can then be utilized by educational leaders to guide them in making informed curricular decisions. The implementation of the decisions made by educational leaders will transfer to immediate impacts for students.

## Special Education Services

### *History*

The history of individuals with disabilities is a dark and unsettling tale. Prior to the 18<sup>th</sup> century limited knowledge existed about the cause of disabilities or why people acted the way that they did. As a result of limited knowledge, societies responded to individuals with disabilities in unique and disturbing ways. Early societal reactions ranged from using individuals as buffoons, court jesters, and even more harsh reactions such as isolation, or even sentencing individuals to death (Beirne-Smith, Patton, & Kim, 2006; Hickson, Blackman, & Reis, 1995). In the early 1900's a research group recommended segregation and sterilization of people with disabilities. This resulted in the sterilization of nearly 30,000 people in the United States over the next 50 years (Kode, 2002). Even as knowledge increased people with disabilities were viewed as flawed or inferior. Segregation continued to be commonplace in society and schools.

Segregation of individuals based upon disability extended beyond the physical location the person resided. Rather, public schools also contributed to the segregation of students with disabilities. Prior to 1970, many public schools did not provide services to students with a disability. In rare cases where public schools did provide services to students, the services were minimal and offered in segregated settings (Smith, Polloway, Doughty, Patton, & Dowdy, 2012).

While this effort did increase the amount of services available to students with disabilities, it also contributed to the model of segregation already impacting children and schools. By having children segregated by a physical or mental characteristic, schools perpetuated the issue of unequal access to education.

Access to special education services for students with disabilities has increased drastically as legislation and litigation have guided policy makers to create a new landscape for students in the modern era of education. Historic cases such as *Plessy v. Ferguson* (1896) and *Brown v. Board of Education* (1954) were pivotal in the movement for the education of all students. These cases are typically regarded as monumental for students of different races, but these legal cases also gave precedence to all students who did not fit a singular definition. This means that students with disabilities now had a legally established platform in which their concerns could be heard.

Equal access to schools was not enough to ensure all students were given an appropriate education. In 1975, the passage of the Individuals with Disabilities Education Act (IDEA) was key to the foundational legal precedent for the education of all children, in particular those children with disabilities. Kaye and Aserind (1979) describe the passing of IDEA as, “explosive legislation” (p. 137). IDEA created a legal initiative to ensure students with a disability were given a free and appropriate public education. IDEA contained detailed language and funding attached to assist in carving out new standards and expectations for school and students.

With the passage of IDEA it became clear that schools had to do more than just simply provide access to education for all students. Rather, schools needed to provide the resources necessary to ensure equal access to the appropriate education for each individual student. The depth of the responsibility school districts leaders owe to students with disabilities was most

recently evidenced in the 2017 Supreme Court decision of *Endrew F. v. Douglas County School District*. The court ruled that school districts not only need to provide appropriate access for students with disabilities, but they must also provide an opportunity to make meaningful progress in the curriculum.

IDEA marked the beginning of special education services, as they currently exist. IDEA (2004) ensures not only a legal obligation for school districts to serve all students, but also a framework for how to evaluate students and provide special education services to students. IDEA requires that students must meet two different qualifications in order to be eligible to receive special education services. First students must have a documented disability. Secondly, if a student has a documented disability, their progress in the general education curriculum must be negatively impacted if they were not to receive the support of special education services.

According to IDEA school district personnel have an obligation to seek out students who may be eligible for special education services. A referral for an initial evaluation for special education services can be made by anyone who suspects that the child may have a disability. Once a written referral is delivered to a school district representative a multidisciplinary evaluation team must complete a full, individual evaluation that includes a written report of eligibility determination as well as present levels of academic performance and what the educational needs of the student have been determined to be (MARSE R 340.1721a). For students who meet the IDEA established criteria for special education eligibility during the initial evaluation process an individualized plan must be developed. This plan is known as an independent education program or IEP.

The IEP is the foundation for the student's appropriate education; it is the assurance that ... students covered by IDEA will benefit from special education and have real access to

equality of opportunity, full participation, independent living, and economic self-sufficiency. (Turnbull, Turnbull, Wehmeyer, & Shogren, 2016, p. 16)

A team of individuals that, at minimum, must include a general education teacher, special education teacher, school district representative, parent, and student conducts the development of the plan. The IEP is more than just a legal document. It is a contract offered by school district personnel that aims to ensure students who receive special education services are given the appropriate and necessary tools to access education.

In 2012, 6,401,000 students ages 3-21 received special education services in the United States. This accounts for 12.9% of the total enrollment of students in the United States (National Center for Educational Statistics, 2015). This is the percent of students who have been found eligible for special education services via the eligibility process as outlined by IDEA.

Unfortunate, this percentage does not accurately represent all of the students who many need special education services. The eligibility process has many layers and strict criteria associated with determination of eligibility. This means that there are many more students who may be eligible, but have not been assessed by the formal eligibility process. Also, there are many more students who have been assessed, but due to the strict criteria, may not be eligible for services at the time of eligibility review. All of these factors combined lends light to the truth that there are many students who receive special education services, yet many more who have not been determined eligible who may also benefit from services.

Being evaluated and found to meet the IDEA criteria for receiving special education services through an IEP is just the beginning of the special education process. There are many more ongoing steps that are needed ensure services are delivered in the most beneficial way for the student to maximize access to the general education curriculum similar to their general

education peers. One major hurdle is ensuring that special education services are offered in the optimum environment and location. As previously noted, segregation has been a pattern well established in the history of special education services. The push for inclusion of all students is a battle that continues to be fought in every school district. According to the Michigan Part B State Performance Plan and Annual Performance Report (SPP/APR) for 2013-14, 65.37% of students who receive special education services were educated in the general education setting with their peers for 80% or more of the school day. This is up from 50.3% in 2006. While this increase in students being educated in inclusive settings is promising, the same report indicates that 11.24% of students who receive special education services are educated with their general education peers less than 40% of their school day. Without equal access to the general education curriculum, it is hard if not impossible for students to access the essential skills needed to graduate high school with a diploma. The access to curriculum and social interactions that occur in the general education setting cannot be replicated outside of this setting. Every time a student is pulled out or placed away from the general education setting, access to social interactions with their peers is interrupted.

### *Disability Categories*

The Individuals with Disabilities Education Act or IDEA (2004) defines 13 disability categories. The categories include: specific learning disabilities (SLD), speech or language impairments (SLI), other health impairments (OHI), autism (AI), intellectual disabilities (ID or CI), developmental delays, emotional disturbance (ED), multiple disabilities, hearing impairments (HI), and orthopedic impairments (OI). Students who are found to have a disability

that meets the criteria of one of these categories and the disability impacts their ability to progress in the general education curriculum may receive special education services.

According to the National Center for Educational Statistics (2015), in the 2011-12 school year 6,401,000 students received special education services. Learning disabilities, emotional impairments, or other health impairments accounted for 3,419,000 of these students. Students diagnosed with specific learning disabilities (SLD or LD), the largest disability category, accounted for 4.7 percent of all students who were enrolled in public schools at this time. Students who were diagnosed with other health impairments (OHI) and emotional disturbances (ED) accounted for 1.5 percent and .08 percent of all students who were enrolled in public schools at this time respectively. This data indicates that seven percent of all school age children in the 2011-12 school year received special education services for disabilities in LD, OHI, or ED. This is a substantial population of students and their presence cannot and should not be ignored in schools.

### Graduation

High school graduation marks a significant milestone in most people's lives. Graduation creates a platform in which a person launches forward to career or additional education. The inverse is also true. If a person does not graduate from high school their access to employment and education are at risk.

The Every Student Succeeds Act of 2015 supports the previous legislation of the No Child Left Behind (NCLB) Act of 2001 in defining graduation as any student who receives a standard diploma within four years of starting high school. The state of Michigan, unlike some other states, only awards one standard diploma. This diploma is based upon the Michigan Merit

Curriculum (MMC). Completion of the MMC and successful graduation with a diploma indicates “students who earn a diploma, at minimum, have demonstrated proficiency with the content outlined by the state academic standards and guidelines” (Michigan Merit Curriculum High School Graduation Requirements, p. 1, 2014). Any student who had 8<sup>th</sup> grade status during or after the 2005-2006 school year must meet the MMC requirements in order to be eligible to graduate high school with a Michigan diploma. According to Michigan State School Aid Act (2011) only students who successfully meet all graduation requirements are awarded a diploma. Students may also be eligible for a Personal Curriculum in order to receive a diploma. The Personal Curriculum is intended to modify curriculum for a student while still meeting the locally determined level of content mastery. If a student has successfully completed all or nearly all of the MMC requirements with the assistance of a Personal Curriculum they are still eligible for a diploma (Michigan Merit Curriculum High School Graduation Requirements, 2014). The state of Michigan does allow for a local school districts board of education to award a student a certificate of completion. This, local awarded, certificate does not fully replace a high school diploma and is not fully aligned to the MMC standards. Students how who are awarded a certificate of completion fall short of job and future educational endeavors that require a diploma as minimum qualifications.

High school graduation is not only significant for the student, but also for the school district in which the student is enrolled. Smith, Manuel, and Stokes (2012) state that graduation rates are the best indicator of accountability for high schools. Michigan high schools report graduation data yearly to the Michigan Department of Education (MDE). In the 2013-14 school year 97,664 out of a possible 124,279 students graduated from Michigan high schools. This equates to a graduation rate of 78.58% of eligible students from the 4-year cohort who graduated

(Michigan Annual Performance Report, 2014). This data also indicates that over 20% of eligible Michigan high school seniors are not graduating within four years of beginning high school. With high school graduation rates being accepted as a key indicator of accountability for Michigan high schools, it is evident that more work needs to be done in order to increase graduation rates.

Graduation rates for Michigan high school students who receive special education services is much lower than their general education peers. The Michigan Special Education Public Reporting- Indicator Report (2014) cites that students who receive special education services in Michigan high schools have a four-year cohort graduation rate of 53.63%. This data reveals that almost half of the Michigan high school seniors who receive special education services are not graduating.

### *Future Impacts*

Student impacts of graduation or failure to graduate with a high school diploma are significant. Not only are impacts immediately visible in the limitations to finding employment and struggles of enrolling in continuing education, but also the long-term impacts are staggering. According to Kaufman, Klein, and Frase (1999) the high school diploma is seen as an entry requirement to future education and training. This education and training is needed to meet the increasing demands of the U.S. labor market. If an individual does not graduate and place themselves in a position to meet these rising demands the individual as well as the community is left to pick up the pieces and move on.

Future outcomes hinge heavily upon the critical status of being a high school graduate. “Graduating from high school has become a minimum requirement for success in terms of

employment, salary, and future career choices” (Gwynne, Lesnick, Hart, & Allensworth, 2009, p. 5). Most four-year colleges and universities require that a student have successfully completed high school as signified by earning a high school diploma. Without the high school diploma the vast opportunities and areas of education that are found in colleges and universities are not accessible to the individual. This has long-term impacts as well. Carnevale, Rose, and Cheah (2011) indicate that graduates with a bachelors degree from a four-year college will earn 84% more than someone with a high school diploma and 233% more than someone without a high school diploma. Data from the U. S. Census Bureau (2015) supports this by stating that the 2014 median weekly earnings for someone with less than a high school diploma was \$488. The average median weekly earnings by all workers, regardless of educational attainment, was \$839. Individuals who had attained a bachelor’s degree had a reported median weekly earning of \$1,101.

Employment status is also impacted by educational attainment. “Individuals with a high school degree or less are unemployed at nearly twice the rate of those with a bachelors degree or higher” (Shaw & Dukes, 2013, p. 52). According to U. S. Census Bureau (2015) data in 2014 an individual who had less than a high school diploma had an unemployment rate of 9.0%. The unemployment rate of all workers, regardless of educational attainment, was 5%. It is clear that the life-long implications to earning potential are significant. If an individual is unable to make a wage that supports their family or they are unable to obtain employment, not only does that individual suffer, but also the families of that individual as well as the community. When families are struggling to meet the everyday demands communities are relied upon to support the individuals and their families through fiscal means. Additionally, the community is not able to meet employment demands without qualified individuals. This can lead to staggered growth and

economic hardship. The ability for the community to support itself with a strong tax base and highly skilled work force is depleted. Without the internal support the community can easily crumble and fall in on itself.

### *Students with Disabilities*

There are currently over 6.4 million students ages three through twenty-one who receive special education services in the United States (National Center for Education Statistics, 2015). This includes 208,000 K-12 students in the state of Michigan that receive special education services (MI School Data: Disability Snapshot, 2015). Students who receive special education services account for approximately 13% of all public school students nationwide (DePaoli, Fox, Ingram, Maushard, Bridgeland, & Balfanz, 2015). This group of students represents a significant population in schools. The challenges and needs of this diverse group must be accounted for and understood in order to provide positive outcomes for students with disabilities and all students and schools alike.

DePaoli, Fox, Ingram, Maushard, Bridgeland, and Balfanz, (2015) estimate that 85 to 90% of students who receive special education services can meet diploma requirements if they are provided the correct supports from the school. Unfortunately, nationally only 61.9% of students who receive special education services graduated from high school (DePaoli, Fox, Ingram, et al., 2015). This data indicates there is a misalignment of expectations, abilities, and current outcomes. Graduation rates that are far below their general education peers means continued struggles for students who receive special education services. Shaw and Dukes (2015) state that adults with disabilities have extremely high rates of both underemployment and

unemployment. Lack of success in graduating high school is a key contributor to continued struggles later in life and employment for students who receive special education services.

### Extracurricular Activities

The existence and prominence of extracurricular activities in secondary schools cannot be ignored. Evidence of extracurricular activities can be seen in all areas of the schools and communities the schools reside in. From sports scores in the newspaper to pictures of student artwork on display, extracurricular activities are very much a part of the everyday school curriculum. School district leaders choose to provide funding and support to a wide range of clubs and activities offered in their schools. Each of these clubs and activities has a different value and importance for each individual student.

Data from the United States Census (2014) indicates that 57% of children between the age of 6 and 17 years old participate in at least one extracurricular activity. With almost 6 out of 10 children participating in extracurricular activities of some type, any associated impact is widely felt. Sports teams had the highest rate of participation with 35% of children participating (U.S. Census Bureau, 2014).

### *Participation of Students with Disabilities*

The No Child Left Behind Act of 2001 and the Individuals with Disabilities Education Act of 1975 both recognize the importance of educational opportunities both in and outside of the classroom. Each of these landmark pieces of legislation places a priority on student participation in activities outside of the normal classroom setting. Student participation with peers in all learning environments is critical to the future success of students who receive special education services. According to Cadawallder, Wagner, and Garza (2011) data from the

National Longitudinal Transition Study-2 (NLTS2) concluded that 76% of children age 13-17 with disabilities reported participating in at least one extracurricular activity in the last year surveyed. Sports teams were indicated as the type of activity with the most participation. Participation on a sports team by students with a disability was reported at 49.7%. Cadawallder, Wagner, and Garza also reported that participation in extracurricular activities did not have much variance in regards to student disability type. The NLTS-2 study indicated the following extracurricular participation data: 78.3% of students who have a learning disability, 70.1% of students with an emotional disturbance, and 81.9% of students who have other health impairments. This data shows that on average 76.8% of students who have a disability in the areas of learning disabilities, emotional disturbances, and other health impairments reported as participating in at least one extracurricular activity for the year surveyed.

According to the NLTS-2 study more than three-fourths of students with disabilities are participating in extracurricular activities. This means that the majority of students who receive special education services are already in place to receive benefit from what these groups can offer. The issue of attracting students who receive special education services to activities is not an issue. Students and their families are seeing the benefits and choosing to participate in these activities with their general education peers in very high numbers. This provides a naturally inclusive environment for benefits to be emphasized and shared with all participants.

### *Impact*

The impact of extracurricular activity on students has been widely researched from many angles. Studies denote that participation in extracurricular activities positively influences academic and social outcomes for students (Zaff, Moore, Papillo, & Williams, 2003). Carlson,

Scott, Planty, and Thompson (2005) also conclude “there is ever-increasing evidence that school athletic participation is positively associated with many educational, labor market, and health outcomes” (p. 2). Extracurricular activities provide for structured social time with peers and an opportunity for students to engage their efforts and talents collaboratively on content that may not be part of the normal school day. Zaff et al. also remark that nearly 80% of a child’s waking time is spent outside of school. This means that the vast majority of a child’s time is available to be positively impacted by extracurricular involvement.

Monitoring and influencing positive academic achievement outcomes is a primary goal of school district leaders. School district leaders are in a constant battle to scan the school environment and provide resources and decisions that enhance the educational environment for student benefit. Research has shown that extracurricular activity involvement has a positive impact on a student’s academic achievement (Marsh, 1992). In a study conducted by Zaff, Moore, Papillo, and Williams (2003), data suggest, “consistent participation in extracurricular activities from 8<sup>th</sup> through 12 grade predicts academic achievement.” (p. 620). Carlson, Scott, Planty, and Thompson (2005) further add that high school varsity athletes are more likely than non-athletes to have postsecondary education. These data all point to the positive academic impacts that extracurricular participation can add to the educational environment of a school. School district leaders need to look no further than their own hallways and facilities to see the academic opportunity that extracurricular offers can add.

Academic achievement is not the only indicator of success in schools. Building a sense of engagement and community is also vital to continued school success. Once again, school district leaders are tasked with finding and developing sources of engagement for student benefit. According to Cadawallder, Wagner, and Garza (2011) data from the National Longitudinal

Transition Study-2 (NLTS2) states that students who participate in extracurricular activities report as having more friendships. This is due to the nature of the activities providing increased opportunities for peer interactions in a variety of settings. Additionally, Zaff, Moore, Papillo, and Williams (2003) report that participation in extracurricular involvement is a predictor of pro-social behaviors. These studies indicate that extracurricular participation has impacts that empower the student to engage and collaborate with others. This opportunity for engagement and friendship helps to build engagement and community within the extracurricular setting, but also continues that trend within the school setting. School district leaders can harness this student-lead movement to facilitate additional engagement and community during the regular school day.

### Student Involvement Theory

School district leaders can have infinite resources at their disposal and still not achieve the student outcomes that they desire. Ultimately, student interest, motivation, and involvement are critical keys to successful student and school outcomes. School district leaders must find a way to spark student motivation and involvement, as a way to ensure student engagement and therefore achieve desired academic and social outcomes. Astin's (1984) theory of student involvement contends that in order for a curriculum to achieve its desired impacts, this curriculum must prompt investment of energy on the student's behalf. Student involvement theory reinforces the idea that students need to be actively engaged with the educational environment in order to achieve maximum outcomes. Many times school district leaders focus heavily upon what can be done by the school to impart change on a student. Perhaps the solution to the problem needs to have a different approach. The student is the key element and they need

to be empowered in order to achieve desired outcomes. Student involvement theory indicates this as well. Students are in the driver seat and the obligation of the school district leadership is not to “enforce” or provoke policies onto the student, but rather to build opportunities for students to engage and develop their interests.

Astin describes five basic postulates of student involvement theory:

(1) Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination); (2) Regardless of its object, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times; (3) Involvement has both quantitative and qualitative features. The extent of a student’s involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and daydreams); (4) The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program; and (5) The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. (Astin, 1999, p. 519)

According to Astin’s student involvement theory, a student must actively engage mentally and physically in the educational activity. Forcing students to join a club or activity may not have the desired effect. A student must select an activity that fits their interest area in order for the student to elicit the needed energies into that activity. This is also why it is critical that students

have a variety of clubs and activities to choose to participate in. Astin further details that student investment occurs along a continuum. Each student is an individual as echoed by IDEA (1975) legislation. Each individual will have varying interests and levels of investment in differing clubs and activities. If school district leadership narrows the club and activity offerings they run the risk of alienating many students simply due to interest areas. The inverse is also true. If school district leaders increase the variety and accessibility to clubs and activities, they can expect increased interest on the part of the students as the variety of clubs and activities will yield favorable to many interest areas.

Astin (1999) illustrates that if school district leaders are looking for effective practices that benefit student learning and personnel development, they must create policies and practices that directly influence student involvement. For many school district leaders this may be a new way of approaching effective practices. Student involvement theory indicates that student participation and investment is the key to education outcomes. In other words, what the student does and has access to has more priority and impact on outcomes than what the educator does in their practice. This indicates that student involvement needs to be prioritized as the main point of focus in the allocation of resources, curriculum offerings, and all other school district policies and practices.

### Gaps in the Research

The areas of special education, high school graduation, extracurricular participation, and student involvement theory have all been studied with research indicating key ideas and principles of application for each. What the research has not done is look at each of these topics

in relation to each other. Each one of these factors is present in the daily routine of high school students. These factors do not live in isolation from each other.

Students who receive special education services have been closely studied and monitored for years by local school districts, state departments of education, as well as the national department of education. All too often this monitoring does not look at categories and relationships outside of the special education realm. Data suggests that special education students are not graduating at a rate equivalent to their peers. Additionally, special education students are participating in clubs and activities. Research is needed to fill in the gaps that exist when exploring graduation rates of students with disabilities and what impacts these rates.

Astin's (1984) theory of student involvement has been researched and applied to higher education studies and practices. These same principals have not been applied to the world of high school educational settings. The core ideas that are present in Astin's work are applicable to high school settings as well. More research is needed to seek out how these ideas exist and influence policies and participation at the high school level. While college age students do have differences in some of their interactions and outcomes a case can be made that many of the issues they face are similar to high school age students. Additionally, the five basic postulates of student involvement theory as outlined by Astin (1999) are very much applicable to high school age students as well. First, investment of physical and psychological energy is vitally important regardless of age of involvement. Student involvement is the key to this theory and foundational to all other factors. Secondly, Astin explains that involvement occurs along a continuum. This is based upon interest, type, and availability of the activity in question. This is not unique to college age students and activities, but extends to all ages and types of activity involvement. Thirdly, Astin indicates that involvement has both quantitative and qualitative features. This is

also relevant for high school age students and activities. Each activity has a different level of involvement and what it requires of the participant. Next, Astin outlines that the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program. Once again, this idea is easily extended to the high school level as it meets the criteria of an educational program. Finally, Astin states that the effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. Regardless of the age of a student, student involvement is critical to the impact that the activity can have. Student involvement can and should be applied to high school age students to seek out strategies for academic and social improvement. Just because this theory has been previously used to investigate scenarios at a college level, does not justify only using it to look for relationships at this level.

### Summary

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. The focus of this study was to examine the impact that extracurricular participation has on graduation rates of students with disabilities as well as to examine if the type of extracurricular activity has an influence graduation rates of students with disabilities.

Current research provides information to school district leaders in many areas related to graduation, students with disabilities, and participation in extracurricular activities. However,

gaps do exist in the current body of research when all of these factors are examined together. School district leaders need accurate and detailed information and strategies to influence student outcomes. These strategies need to be readably accessible in order to be employed by school leaders within their schools.

Students with disabilities account for 12.9% of the total enrollment of students in the United States (National Center for Educational Statistics, 2015). In the 2013-14 school year, students with disabilities in Michigan high schools had a four-year cohort graduation rate of 53.63% (Michigan Special Education Public Reporting- Indicator Report, 2015). This data indicates that there is a lot of work to be done in order to meet expected outcomes of graduation for students with disabilities.

Failing to complete high school with a diploma does not mean the impacts to a student ends on when their time in high school is over. Kaufman, Klein, and Frase (1999) indicate the high school diploma is seen as an entry requirement to future education and training. Carnevale, Rose, and Cheah (2011) add that a graduate with a bachelors degree from a four-year college will earn 84% more than someone with a high school diploma and 233% more than someone without a high school diploma. Without earning a high school diploma, future outcomes for students and communities are placed in jeopardy.

Rigid graduation requirements limit the amount of variation that school district leaders can have with curriculum offerings during the regular school day. School district leaders must find a new way to examine and influence the issue of student outcomes. Astin (1999) illustrates that if school district leaders are looking for effective practices that benefit student learning and personnel development, they must create policies and practices that directly influence student involvement. School district leaders can influence what resources are allocated to extracurricular

activities via school-sponsored clubs and activities. Research is needed to provide school district leaders with information about the relationship between graduation rates of student's who receive special education services and their participation in school-sponsored clubs and activities.

## CHAPTER III

### METHODOLOGY

#### Introduction

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. This study was framed by adapting the theory of student involvement (Astin, 1984). This study examined existing school data records to look for relationships between students who receive special education services and also participate in a school-sponsored club and/or activity as well as students who receive special education services and do not participate in a school-sponsored club/and or activity and their respective graduation rates. In addition, participation in a school-sponsored club/and or activity was broken into three categories; academic, social, and physical. Each of these categories was examined and graduation rates of students who received special education services and participated in each was examined.

This chapter outlines the research design of this study. The methods used to collect and analyze the data to inform this study are presented in this chapter. Additionally, this chapter presents the proposed research questions, population, sample, and data collection procedures for this study. This chapter concludes with the limitations of this study and summary of the chapter.

#### Positionality Statement

The researcher in this study is a lifelong resident of rural communities and has worked with general education and special education students in rural settings for over 15 years. Special

education in rural settings creates unique challenges for the community, educators, and students. Resources are limited or too far away geographically to be of service to a student. When a student falls to achieve academic success all stakeholders are impacted. This is not limited to just the student. The communities of rural school districts rely upon each generation of students to become productive contributors to the local community. It is all too often witnessed when a student will stumble in their academic endeavors early in their high school experience and their persistence and self-confidence crumble. As an educator who has seen this in action, it is heart wrenching. Educational leaders need increased knowledge and more strategies to help all students achieve. Special education students are a population of students that provide a school district and community with an enormous aptitude for growth.

The researcher in this study is also an active youth sport coach and advocate of student involvement. The positive impacts of involvement have been witnessed in so many cases over the last 15 plus years. Many times it has been observed by the researcher that leaders believe student involvement has been seen as a major contributing factor that leads to a student's success in academics. This success in high school is also believed to have significant contributions to success after high school and leads to numerous positive outcomes for that student during the course of their lives. This study was an effort to unite all of the researchers passions and interests. Children and students deserve every opportunity we can structure for them. Enlightened educational leaders are uniquely positioned to have a profound impact on a student that the student will carry with them for a lifetime. It is the goal of this study to inform, enlighten, and encourage educational leaders to provide the very best of opportunities and outcomes to our students.

## Research Questions

1. To what degree are high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired participating in school-sponsored clubs and activities (i.e., academic, physical, and social)?
2. What are the effects of participation in school-sponsored clubs and activities (i.e., academic, physical, and social) for high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired on graduation rates?

## Research Design

This quantitative non-experimental research design utilized secondary data to examine graduation rates and extracurricular participation of high school students who receive special education services. Creswell (2009) explains quantitative research as testing theories through examination of relationships between variables. Student involvement theory (Astin, 1984) was used in this study to examine the relationship between the dependent variable of high school graduation and the independent variables of participation in a school-sponsored club or activity as well as type of activity. A post-positivist worldview (Creswell, 2009) was adopted for this study to determine if a relationship existed between variables. This approach acknowledges that our ability to know with exact certainty is not without some error. Previously collected data through school management systems such as Skyward, EdPlan, and school club and activity rosters as well as yearbooks was utilized as sources of data. School management systems such as these are used to log and house student level data with weekly and monthly frequency. School

staff members such as school secretarial and support staff members submitted the original collection of the student level data into the school management systems. The school district data-technology director then extracted the student-level data and student identifiable information was removed prior to submission to the researcher. There is the possibility of some inconsistencies in the data if student-level data was coded incorrectly by any individual in any step of the process, but that likelihood is minimal.

### Population

The selected population for this study was high school students in Michigan who receive special education services. More specifically, the population included four cohorts of high school students who began high school in the school years 2009-2012 and received special education services in the disability areas of learning disabilities, emotional impairments, and other health impairments. The four most recent cohorts of data were used for this study sample. Specifically, cohorts of students who were subject to the Michigan Merit Curriculum (MMC) were selected. The MMC requirements were implemented beginning with students who entered the eighth grade in 2006 and beyond. The MMC created additional credit requirements for high school students and explicitly indicated credit type and quantity for each subject area of the curriculum for students who wished to graduate with a high school diploma (Michigan Revised School Code, 2006).

### Sample

This study targeted students in two selected rural school districts in Michigan. Each of the school districts was selected based upon their size, location, and similar demographic information. Additionally, the researcher has established rapport with each of the school districts

in the sample. This provided ease of access to school data that may have been otherwise difficult or impossible to acquire. The sample for this study was the entire school population of these two selected school districts. The school districts selected have similar demographics. The two schools report that they each have an economically disadvantaged rate of 49.8% and 56.6%. Each school selected also had a similar graduation rate. Special education four-year cohort graduation rates for the schools in this sample ranged from a high of 60.90% in the 2011-12 school year to a low of 35% in the 2014-15 school year (Michigan Annual Performance Report, 2015). The two school districts in this sample report an average four-year special education cohort graduation rate of 42.61% collectively between the 2012-2015. State targets for special education four-year cohort graduation rates were set at 80% for each of the graduation years. The statewide average during the graduation years from 2012-2015 was 53.53%. The state averages fall far below the established target rate of 80%. In addition, the schools in this sample also fall below the state averages during this period. Each school in the sample have similar pupil to student ratios (26:1 and 24:1) and student enrollments (1,946 and 2,052) (Michigan Annual Performance Report, 2015).

Each of the two schools in this sample has a similar amount and variety of school-sponsored clubs and activities that are offered at their school. In total, the following number of different clubs and activities were offered; 16 athletic activities, 17 academic activities, and only one social club were offered at one of the sample schools. This allowed for ease of comparison when classifying the type of activity offered at each school. This also means that students have a similar variety of experiences to choose from and engage in. The students like experiences strengthen the continuity of the sample group. The similarity between each school in type and

amount of club or activity offering provides each student in the sample with similar options and exposures to the school-sponsored clubs and activities.

The selected students in this study attended high school beginning after the 2005-06 school year. The students selected also receive special education services in the areas of learning disabilities, emotional impairments, and other health impairments. All of the students in this sample were subject to the same graduation requirements under the Michigan Merit Curriculum. The sample districts report that they have 12.4% and 15.3% of their students receiving special education services during the 2015-16 school year (Michigan Annual Performance Report, 2016).

Purposeful sampling was used to select the school districts and students for this study. This sampling technique was used in an effort to help best answer the research questions in this study. This study was narrow in its focus and the intent was to be predictive in nature. Student level data can be difficult to retrieve from school districts. The data needs to be collected from many different locations and many of these include reports that are submitted annually to the state department of education. There are very few people in the school district who have the knowledge and experience to run the reports needed to determine graduation status, disability type, and participation status. This type of data retrieval can be a time tasking process and requires expertise in order to be properly organized. The school district technology directors were the optimum person to perform these tasks as they are at the center of all the data sources. The timeline for the data retrieval and coding relied upon the school districts technology director's availability and schedule.

The predictive nature of this study can be utilized to aid school district leaders in making decisions to allocate resources to school-sponsored clubs and activities. This study provides

district leaders with data to guide informed decisions. This study also provides district leaders with recommendations to assist in future decisions to help guide development of positive student outcomes.

### Data Collection

In this study, data was collected from secondary data sources that included student data management systems at the school district level as well as school-sponsored club and activity participation data. The school management systems (©SKYWARD) house student-level data that is used for local and state reporting. Student data is collected from parents, teachers, and students. A school clerical staff or counseling staff member then codes collected data. Finally, student level data is entered into the school management systems. Student-level data is updated frequently to reflect student progress. Graduation data is also submitted in this student data system yearly. In addition to the school data management system, school district staff members also utilize EdPlan™. This data management tool is used to collect student level data for students in the district who receive special education services. Detailed information is stored in this system including student disability type. For this study, the school district technology director extracted student data from each of these sources to assist the researcher. If student level data is coded or entered in the school management system incorrectly an error in the data would exist without knowledge of this error. Additionally, student participation in a school-sponsored club and activity is recorded into the school management system infrequently. This means that participation rosters may be entered into the school management system at the beginning of the season or early in a club and activities meeting schedule. If a student does not persist in the club or activity for the full duration of the club or activity an error would occur in the data. Currently

there is no practice in place to track and report student participation throughout the duration of a clubs or activities scheduled season or meeting dates, which is a noted limitation of this study.

Other forms of data were utilized for collection of participation information in school-sponsored clubs and activities. The school districts do not always record club or activity participation within the district level student management system previously noted. This means that participation data is not centrally located in one electronic file system. Rather, participation data is located in other locations such as athletic program rosters and school yearbooks. These data sources were used to determine the type and variety of school sponsored clubs and activities offered to students in each of the sample schools. Participation data was recorded through onsite visits. Each school in the sample was visited at least one time by the researcher. At each visit the researcher was onsite for two to three hours reviewing yearbook records to accurately record the type and variety of club and activity offered by the school district. The high school office, library, and student data management systems housed all of the various sources for participation data. The researcher completed a spreadsheet of each of the sample schools clubs and activities that were offered. The clubs and activities were then categorized by participation type (athletic, academic, social). In order to make informed decisions about the category of each club and activity, the school principals at each school in the sample were consulted. Each of the principals and the researcher agreed upon the criteria for each category and classified each the same without discrepancy.

Following Institutional Review Board (IRB) approval, data collection began at the school district level. The school district technology director extracted district level data and student identifiable information was removed. All coded data were secured in a locked file in the

researchers office and the researcher also secured electronic files using a password protected system.

### Variables in Research Question #1

Creswell (2009) defines a dependent variable as one that's outcomes are influenced or depend upon the independent variable. The dependent variable in this study is graduation rates (dichotomous) of high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired. Each school district records special education eligibility for students in district level student data systems such as ©SKYWARD and EdPlan™. Independent variables cause or influence outcomes of a study (Creswell). This study had three independent variables for school-sponsored clubs and activities: academic, physical, and social (categorical). Additionally, this study also had an independent variable of student grade point average (GPS). Data gathered from school rosters and yearbooks as well as EdPlan™ was analyzed to determine which students with disabilities in the selected areas participated in school-sponsored clubs and activities. Graduation data and participation data were compared as shown in Figure 1.

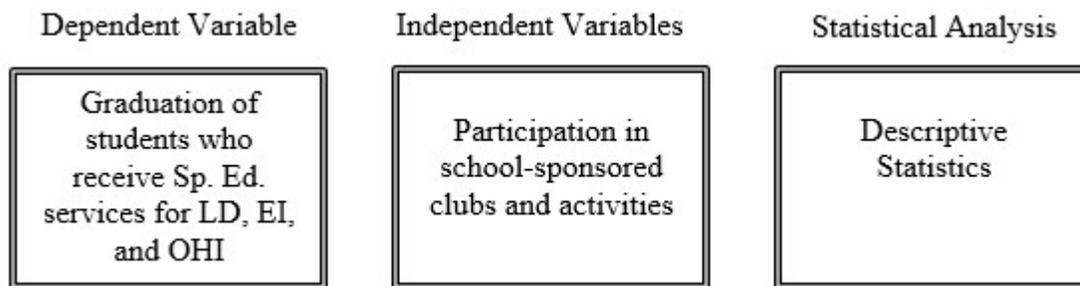


Figure 1. Analysis Framework for Research Question #1

## Variables in Research Question #2

The dependent variable in this research question was graduation (i.e., whether or not a student graduates) for high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired. This data was collected by analyzing information from the district level student data systems ©SKYWARD and EdPlan™.

The independent variables in research question number two were student grade point average (GPA) as well as the type of school-sponsored clubs and/or activities that the students participated in. Each of these variables were tracked and recorded in each of the sample school districts data management systems. This data was then obtainable in the student data set provided by the technology director at each of the sample schools. The school-sponsored clubs and activities were broken down into three category types: academic, social, and physical. This was done in an attempt to provide structure to the various offerings of the sample districts. Additionally, each category of club and activity has a unique area of focus. Athletic clubs compete against other school districts with additional eligibility criteria that is set in place and monitored on a regular basis. Academic clubs and activities may or may not compete against other schools. Academic clubs and activities share a commonality with each other in that they all focus on content that is also made available to students during the regular academic day. Social clubs do not have the same framework as athletic and academic clubs and activities. Rather the focus of these clubs can be interest areas of students that are not an extension of the school curriculum and do not require regular practices, meetings, or competitions.

Graduation data and participation by category type data was compared as shown in Figure 2. This research question examined the unique effects of participation in clubs and activities on selected student graduation rates.

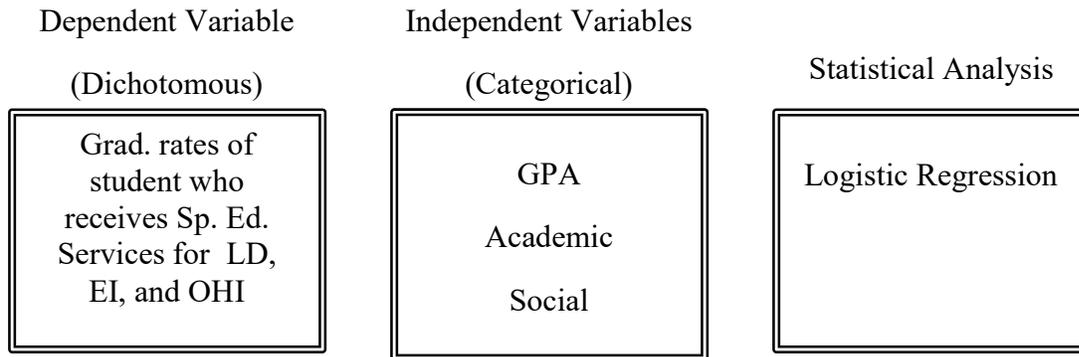


Figure 2. Analysis Framework for Research Question #2

#### Data Analysis

Following data collection, the data was imported into SPSS® (Statistical Package for the Social Sciences, version 20). Descriptive statistics tests were conducted to provide a summary view of the data that was collected. Additional statistical tests were conducted; see Table 1, and the results of these tests are shared in Chapter IV of this study.

#### Limitations of this Study

Limitations to a study are defined as concepts that are related to the internal validity or internal threats of the study (Dereshiwsky, 1999). This study has several limitations that need to be considered. The student efforts needed to participate in a school-sponsored club or activity are not accounted for. For some students time may be a limiting factor. A student may have to work or care for family members and therefore have difficulties participating. The majority of the time spent in a school-sponsored club or activity occurs after the normal school day hours. This

can create an insurmountable obstacle for some students who have responsibilities outside of school that they cannot manipulate.

Transportation creates another challenge to student participation. Transportation is costly and many times students rely on district operated busing to access school. Districts do not provide busing outside of the regular pick up and drop-off times. Rural school districts students are met with an increased challenge of transportation. Rural districts have greater geographic distances for students to travel between school and home. Increased distance means increased reliance upon reliable transportation and many times school bus routes are the only available service to students.

Financial issues are also not controlled for in this inquiry. Some clubs and activities require out of pocket expenses in addition to expenses associated with increased transportation. For athletic activities this may mean proper equipment and clothing that is not provided by the school district. For academic activities this may mean additional resources and expenses such as rental of musical instruments or purchasing needed technology.

Additionally, reasons for a student not graduating high school are not examined in this study. Many factors may contribute to a student not graduating high school. A factor such as the need or opportunity for a student to gain fulltime employment is not accounted for in this study. Due to financial obligations students may need to seek out fulltime employment in order to make enough money to support themselves or their families. The guarantee of employment without needing to graduate from high school may also influence students desire to graduate with a diploma. Students may have needs that the school district cannot account for that may influence their ability to graduate with a diploma. One such factor may be the need for childcare. If a

student has a child they may not have the ability to seek out and support childcare during the hours required for school attendance.

Substance abuse may also contribute to a student's inability to graduate from high school. Students may need intensive supports in order to cope with addiction and the intensity and duration of the needed services may not allow them to maintain enrollment in school.

Finally, many students find themselves in transient situations during the school year. Families may be forced to move, relocate, or a student may become homeless during their high school years. All of these factors may have devastating impacts on a student's ability to attend school regularly and graduate with a high school diploma. Additionally, graduation status of a student who transfers out of the district to another school is not able to be collected by the sample school district or in any other centralized database. The graduation status of these students is therefore unable to be accounted for in this study.

### Delimitations

Delimitations to a study are defined as concepts that related to the external validity or generalizability of the study (Dereshiwsy, 1999). This study has several limitations that need to be considered. The narrow focus of this study provides one such delimitation. This study was confined to data from a two school districts in a rural Michigan setting. The size and demographics of the sample of this study may limit the generalizability of the study.

### Summary

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments and their

participation in school-sponsored clubs and activities. The focus was to examine the impact that participation in a school-sponsored club or activities has on graduation rates for high school students who receive special education services in a rural high school in Michigan. Multiple regression analysis was utilized to examine the relationship and impacts of each variable in the study. Chapter IV of this study contains the findings of the research analysis.

## CHAPTER IV

### FINDINGS

#### Introduction

The purpose of this chapter is to present the findings of the study. Permission for this study was granted by the superintendents and high school principals at each of the Michigan high schools included. There were no known risks for participants in this study, as all identifying information including student names and schools was de-identified. The data was stored in a secure location throughout the analysis phase of the study.

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. Participation in a school-sponsored club/and or activity was broken into three categories: academic, social, and physical. Each of these categories was reviewed and graduation status of students who received special education services and participated in each was examined.

#### Descriptive Statistics

Participants ( $n=160$ ) in this study included any student who began the school year as a freshman with their cohort of peers and received special education services for the categories of learning disabilities, emotional impairments, and otherwise health impairments. Data from four cohorts of students was collected. The student cohorts spanned from the 2016 graduation year (2012-13 freshman year) to 2013 graduation year (2009-10 freshman year). The population was from two Michigan high schools and included 113 males and 47 females. School number one

included 87 students who met the study criteria and school number two had 73 students who met the study criteria. Of the total  $N=160$  participants 11% ( $n=18$ ) students received special education services for emotional impairments, 74% ( $n=118$ ) received services for learning disabilities, and 15% ( $n=24$ ) received services for other health impairments. Additionally, 60% ( $n=95$ ) of the study population graduated in four years with a diploma, 4% ( $n=7$ ) earned a certificate of completion, 11% ( $n=18$ ) did not graduate or dropped out, and 25% ( $n=40$ ) transferred from their originally enrolled high school. There was no mechanism in this study that allowed for follow-up on graduation status for students who transferred.

Table 1. Descriptive Statistics for Student Population

Disability Type	Percent of Population	Students ( $n$ )
Emotional Impairment (EI)	11%	18
Learning Disability (LD)	74%	118
Other Health Impairment (OHI)	15%	24

Table 2. Graduation Status for Student Population

Graduation Status	Percent of Population	Students ( $n$ )
Michigan Merit Diploma	60%	95
Certificate of Completion	4%	7
Did Not Graduate/Drop-out	11%	18
Transfer	25%	40

The two Michigan high schools offered school-sponsored activities in three areas. The areas of activity were categorized as athletics, academic, and social types based upon the content and area of focus for each activity. School number one offered 14 athletic clubs, 12 academic clubs, and zero social clubs. School number two offered 16 athletic clubs, 15 academic clubs, and one social club.

### Research Question #1

To what degree are high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired participating in school-sponsored clubs and activities (i.e., academic, physical, and social)?

Descriptive statistics were performed to assess the degree that high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired are participating in school-sponsored clubs and activities. Of the total  $N=160$  participants in the data set, 34% ( $n= 55$ ) participated in an athletic activity, 16% ( $n=25$ ) participated in an academic activity, and 0% ( $n=0$ ) participated in a social activity at least one time during the time they were enrolled in high school. The data also indicated that 8% ( $n=12$ ) of students participated in multiple types of athletic, academic, or social activities, of school-sponsored clubs and activities while they were enrolled in high school.

Table 3. Participation Status for Student Population

Type of School-Sponsored Club and Activity	Percent of Population	Students ( $n$ )
Athletic	34%	55
Academic	16%	25
Social	0%	0
Both Athletic and Academic	8%	12

The amount of participation in school-sponsored clubs and activities was also collected. This data collection included the duration of participation during the time each student was enrolled in the high school setting. Student data collected denoted that 12% ( $n=19$ ) of students participated

in only one session of the club or activity, 32% ( $n=51$ ) participated in two or more session of the club or activity, and 56% ( $n=90$ ) did not participate in any sessions of a club or activity.

Table 4. Duration of Participation for Student Population

Disability Type	Percent of Population	Students ( $n$ )
Participation in One Session of the Club/Activity	12%	19
Participation in Two or More Sessions of a Club/Activity	32%	51
No Participation in a Club/Activity	56%	90

Descriptive statistics were performed to assess the participation of students in each disability category (Table 5). Students who were receiving services as a student with a learning disability (LD) ( $n=118$ ) had the following participation rates: athletic 33% ( $n=39$ ), academic, 15% ( $n=18$ ), and social 0% ( $n=0$ ). Students who were receiving services as a student with an other health impairment (OHI) ( $n=24$ ) had the following participation rates: athletic 46% ( $n=11$ ), academic, 25% ( $n=6$ ), and social 0% ( $n=0$ ). Students who were receiving services as a student with an emotional impairment (EI) ( $n=18$ ) had the following participation rates: athletic 28% ( $n=5$ ), academic, 6% ( $n=1$ ), and social 0% ( $n=0$ ).

Table 5. Participation of Students Receiving Services for LD, OHI, EI

	LD		OHI		EI	
	Students ( <i>n</i> )	%	Students ( <i>n</i> )	%	Students ( <i>n</i> )	%
Athletic	39	33	11	46	5	28
Academic	28	24	6	25	1	5
Social	0	0	0	0	0	0
No Participation	51	43	7	29	12	67

#### Research Question #2

What are the effects of participation in school-sponsored clubs and activities (i.e., academic, physical, and social) for high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired on graduation rates?

A logistic regression was performed to assess the impact that participation in a school-sponsored club or activity had on high school graduation rates of students in the categories of learning disabilities, emotional impairments, and otherwise health impaired. This model used four independent variables, including GPA, athletic participation status, academic participation status, and multiple types of participation status. The dependent variable for this model was student graduation status. This included two categories: those who graduated with a diploma from the high school that they started with as a freshman, and those who did not receive a diploma. The category of not receiving a high school diploma included students who may have received a certificate of completion, dropped out of school, or transferred from the original school to another placement. These different categories of completion were combined to support the regression model. The data set provided by the sample school district technology directors

did include students who received a certificate of completion or dropped out of school. The data set also contained a code for students who transferred to a different district. Unfortunately, graduation status of a student who transfers out of the district to another school is not collected by the sample school district or in any other centralized database. Transfer student graduation status is therefore unable to be accounted for. This data set includes statistics for the total number of students that did transfer, but there is no way to determine if students persisted to graduation of high school with a diploma, dropped-out of school, received a certificate of completion, or if the student has died.

Correlations were conducted on the variables to check for issues of multicollinearity. As the independent variables were compared to the dependent variable of diploma status Pearson Correlation scores ranged from .002-.638. This indicates that there is a relationship with the dependent variable. All scores were below the recommended level of 0.7 (Pallant, 2013).

Table 6. Correlation of Independent Variables to Dependent Variable (Diploma Status)

Independent Variable	Pearson Score
GPA	0.638
LDx Athletic Participation	0.292
LDx Academic Participation	0.203
LDx Athletic+ Academic Participation	0.163
OHIx Athletic Participation	0.174
OHIx Academic Participation	0.163
OHIx Athletic+ Academic Participation	0.132
EIx Athletic Participation	0.002

Multicollinearity statistics were also performed on each of the independent variables against each other. Tolerance and Variance Inflation Factor (VIF) scores were calculated and each ranged from .282-.969 and 1.221-3.540 respectively, indicating no concerns with multicollinearity between independent variables. Tolerance values were well above the recommend value of .10 and VIF scores were far below the recommended threshold of 10 (Pallant, 2013). Therefore, the model did not violate multicollinearity assumptions.

Table 7. Multicollinearity of Independent Variables

Independent Variable	Tolerance	VIF
GPA	0.819	1.221
LDx Athletic Participation	0.774	1.292
LDx Academic Participation	0.619	1.615
LDx Athletic+ Academic Participation	0.579	1.726
OHIx Athletic Participation	0.619	1.616
OHIx Academic Participation	0.328	3.052
OHIx Athletic+ Academic Participation	0.282	3.540
EIx Athletic Participation	0.969	1.032

The logistic regression was performed to assess the impact that participation in a school-sponsored club or activity had on high school graduation rates of students in each of the categories of learning disabilities, emotional impairments, and otherwise health impaired.

*Analysis for Students Who Receive Services for a Learning Disability (LD)*

The logistic regression performed explained between 41.7% (Cox and Snell R square) and 57.3% (Nagelkerke R squared) of the variance in diploma status and correctly classified

82.2% of the cases. As shown in Table 8, two variables made a statically significant ( $p < .05$ ) contribution to the model (GPA and Athletic Participation). The strongest predictor of graduating with a diploma was GPA with an odds ratio of 13.392. This indicates that for every point increase in a student’s GPA they were 13 times more likely to graduate with a diploma. In regards to school-sponsored club and activity participation, students who participate in a school-sponsored athletic activity had an odds ratio of 3.400. This indicates that they are almost three and a half times more likely to graduate with a high school diploma when compared to a peer who does not participate in a school-sponsored athletic activity.

Table 8. Logistic Regression Analysis for Variables Predicting Diploma Status of Students Receiving Services for Learning Disabilities (LD)

Variable	B	S.E.	Wald	df	Sig.	Odds Ratio
GPA	2.595	0.528	24.157	1	0.000	13.392
Athletic Participation	1.224	0.622	3.875	1	0.049	3.400
Academic Participation	0.672	1.000	0.452	1	0.502	1.959
Both Athletic and Academic Participation	17.664	14929.953	0.000	1	0.999	46940753.300

*Analysis for Students Who Receive Services for Other Health Impairments (OHI)*

The logistic regression performed explained between 52.9% (Cox and Snell R square) and 71.2% (Nagelkerke R squared) of the variance in diploma status and correctly classified 87.5 % of the cases. As shown in Table 9, no variables made a statically significant ( $p < .05$ ) contribution to the model.

Table 9. Logistic Regression Analysis for Variables Predicting Diploma Status of Students Receiving Services for Other Health Impairments (OHI)

Variable	B	S.E.	Wald	df	Sig.	Odds Ratio
GPA	1.248	1.032	1.463	1	0.226	3.485
Athletic Participation	2.608	1.412	3.414	1	0.065	13.574
Academic Participation	21.018	28403.661	0.000	1	0.999	1.343
Both Athletic and Academic Participation	-2.532	34620.292	0.000	1	1.000	0.079

*Analysis for Students Who Receive Services for Emotional Impairments (EI)*

There was only one student who reported as receiving services for emotional impairments and participating in an academic activity and only one student who reported as receiving services for emotional impairments and participating in both and athletic and academic activity. Due to this low number, both of these independent variables were not included in this model. The logistic regression performed explained between 34.5% (Cox and Snell R square) and 49.8% (Nagelkerke R squared) of the variance in diploma status and correctly classified 77.8 % of the cases. As shown in Table 10, no variables made a statically significant ( $p < .05$ ) contribution to the model.

Table 10. Logistic Regression Analysis for Variables Predicting Diploma Status of Students Receiving Services for Emotional Impairments (EI)

Variable	B	S.E.	Wald	df	Sig.	Odds Ratio
GPA	1.727	1.046	2.727	1	0.099	5.625
Athletic Participation	1.817	1.424	1.627	1	0.202	6.153

## Conclusion

Findings from this study indicate that the variables of GPA and participation in a school-sponsored athletic activity for students who receive special education services for a learning disability contribute significantly to diploma status. Students who receive services for a learning disability have an odds ratio of 3.4 or are almost three and a half times more likely to graduate from high school in four years with a high school diploma. When factoring in GPA, these students have an odds ratio of 13.392, meaning that for every point increase in a student's GPA they were 13 times more likely to graduate with a diploma.

This study did not find a statistically significant impact for participation of student who received services for other health impairments or emotional impairments. Involvement in either athletic or academic school-sponsored clubs and activities did not produce data that were statistically significant in this model. Exploration of rational that may contribute to this is further discussed in chapter five of this study.

## CHAPTER V

### DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

#### Introduction

This chapter includes a summary of this study. Key findings and conclusions from this study are also presented and discussed in this chapter. Finally, this chapter contains recommendations for educational leaders and opportunities for future research.

Educational leaders are taxed with many responsibilities that impact numerous stakeholders. At the epicenter of all responsibilities is student achievement. High school graduation is considered to be the pinnacle of achievement for P-12 students and educators. This milestone is not simply symbolic in nature. Graduation with a high school diploma will allow for an individual to move forward in their career and education and have access to pursuits that simply are not available without attainment of a high school diploma. High school graduation is a critical gateway to future opportunities and economic mobility for students. Educational leaders must find avenues to positively impact student graduation rates with resources that are at their disposal. This is a steep challenge when contributing factors such as funding, resources, and local and state requirements and regulations are accounted for.

One particularly challenging group, in regards to high school graduation, is students who receive special education services. The State of Michigan has over 200,000 students or more than 13% of K-12 students receiving special education services (MI School Data: Disability Snapshot, 2015). Federal legislation such as the Individuals with Disabilities Education Act (IDEA) is designed to provide access to education for all students. Although, even with legislation in place, students who receive special education services are graduating at a rate that is more than

24% behind their general education peers (Michigan Annual Performance Report, 2014). This suggests that educational leaders have both a large deficit to deal with as well as a great opportunity to increase student achievement and success.

Educational leaders have to take deliberate action in order to begin work to diminish the graduation deficit and elicit positive outcomes for students who receive special education services and are in critical need a high school diploma. Gone are the days of educational leaders making decisions based upon hunches or feelings. Modern K-12 education is sea of diversity, complex needs, research-based practices, and above all else, data driven decision-making. Educational leaders need research and strong data to inform the decisions they make to influence positive student outcomes.

One resource that is readily available for educational leaders, and already in practice in most schools, is that of school-sponsored clubs and activities. The National Center for Education Statistics (1995) found that extracurricular participation was positively associated with success indicators that included consistent attendance, academic achievement, and continuing education after high school. The existence of school-sponsored clubs and activities provide educational leaders with a vital tool to combat low rates of student graduation. Leaders can track participation at their buildings and make swift and deliberate efforts to increase participation and retention thereby immediately impacting student outcomes.

Student involvement theory (Astin, 1984) also provides evidence of the positive impact of involvement on student achievement. Astin's theory contends that in order for a curriculum to achieve its desired impacts, this curriculum must prompt investment of energy on the student's behalf. This theory reinforces the idea that students need to be actively engaged with the educational environment in order to achieve maximum outcomes. Student participation in

school-sponsored clubs and activities are easy ways to coordinate the factors of student participation, the school environment, and academic achievement for both the student and educational leader. Educational leaders have a responsibility to provide numerous entry points for students to engage in. The students also have an obligation to fully participate and engage in the club and activity being offered to them.

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and other health impairments and their participation in school-sponsored clubs and activities. This study was framed using Astin's (1984) theory of student involvement. Examination occurred of existing school data records to look for relationships between students who receive special education services and also participate in school-sponsored clubs and activities as well as students who receive special education services and do not participate in school-sponsored clubs and activities and their respective graduation rates. In addition, participation in a school-sponsored club and activities was broken into three categories, academic, social, and physical. The study analysis included special education students who participated in one of these co-curricular experiences and graduation rates.

The following research questions informed this study:

1. To what degree are high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired participating in school-sponsored clubs and activities (i.e., academic, physical, and social)?

2. What are the effects of participation in school-sponsored clubs and activities (i.e., academic, physical, and social) for high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired on graduation rates?

## Discussion of Key Findings

### *Participation*

Current research indicated that 57% of children between the age of 6 and 17 years old participate in at least one extracurricular activity (United States Census, 2014). Additionally, sports teams had the highest rate of participation with 35% of children participating (U.S. Census Bureau, 2014). This study focused upon participation of high school students who receive special education services in the categories of learning disabilities, emotional impairments, and otherwise health impaired. Data from this study supported these national participation trends. Across both schools in the study sample, 50% of students with a disability in the areas of LD, OHI, and EI participated at least once in a school-sponsored athletic or academic club and an additional 8% participated at least one time in both a school-sponsored athletic and academic club or activity. The rate of athletic participation in this study also supported previously stated participation levels. This study found that 34% of students in the sample participated at least one time in a school-sponsored athletic club or activity. Academic participation was found to be 16%, while participation in a school-sponsored social club or activity was at 0%. The data from this study reflects that participation rates of students who receive special education services are very similar to the national participation trends of all students as indicated by U.S Census Bureau data (United States Census, 2014).

As previously indicated, school-sponsored social clubs and activities had zero student participants. One contributing factor to this may have been the fact that there was only one social club available at only one of the schools in the sample. Participation numbers were high for the athletic and academic clubs and activities. It must be noted that there were many more options available for students in these areas and the social clubs and activities offered either minimal or no opportunities for students in this study. The sample for this study was taken from two rural school districts. Rural districts may have less access to activities outside of traditional academic and athletic offerings. Resources related to social activities may be harder to find or logistically too hard to provide in rural areas that have distances that are far removed from population densities and additional variety.

The participation rates of students who received services for each of the studies identified disability areas were also calculated. On a national level the NLTS-2 study indicated that 78.3% of students who have a learning disability, 70.1% of students with an emotional disturbance, and 81.9% of students who have other health impairments participated in an extracurricular activity. This data shows that on average 76.8% of students who have a disability in the areas of learning disabilities, emotional disturbances, and other health impairments reported as participating in at least one extracurricular activity for the year surveyed. In this study there were 118 students in the sample that received services for a learning disability and 57% participated in either a school-sponsored club or activity. Students receiving services for other health impairments had 24 students in the sample with 71% participating in a school-sponsored club or activity. Finally, students who receive services for an emotional impairment had 18 students in the study sample with only 33% participating in a school-sponsored club or activity. This indicates that the rates

of participation for students who receive services for Emotional Impairments were far below their peers in the other two disability areas.

### *Effects of Participation on Graduation Rates*

Recent research cites that students who receive special education services in Michigan high schools have a four-year cohort graduation rate of 53.63% (Michigan Special Education Public Reporting- Indicator Report, 2014). This data reveals that almost half of the Michigan high school seniors who receive special education services are not graduating. Special education four-year cohort graduation rates for the schools in this sample ranged from a high of 60.90% in the 2011-12 school year to a low of 35% in the 2014-15 school year (Michigan Annual Performance Report, 2015). The school districts in this sample report an average four-year special education cohort graduation rate of 42.61% collectively between the 2012-2015 academic years.

### *Students with a Learning Disability*

In this study the strongest predictor of graduating with a diploma for students with a learning disability was determined to be GPA. The results of this study indicate that for every point increase in a student's GPA they were 13 times more likely to graduate with a diploma. Additionally, students who have a learning disability and participated in a school-sponsored athletic club or activity are almost three and a half times more likely to graduate with a high school diploma when compared to a peer who does not participate in a school-sponsored athletic activity.

### *Students with an Other Health Impairments or Emotional Impairments*

The analysis performed for these students did not yield any variables that proved to be statistically significant. It must be noted that the number of students in the sample who received services for other health impairment and emotional impairments was small, 24 and 18 respectively. Additionally, only 33% of students who received services for an emotional impairment participated in a school-sponsored club or activity. Given the small number of students in this sample, the actual significance of participation may not be able to be determined directly for this study. Although, previous research does provide evidence that student involvement positively impacts academic achievement (Astin, 1984). Research has also shown that extracurricular activity involvement has a positive impact on a student's academic achievement (Marsh, 1992). In a study conducted by Zaff, Moore, Papillo, and Williams (2003), data suggests, "consistent participation in extracurricular activities from 8<sup>th</sup> through 12<sup>th</sup> grade predicts academic achievement." (p. 620). Without increased rates of participation, the positive effects of participation may be missed by many of the students in this group.

Low numbers of participation for students who receive services for other health impairments or emotional impairments in this study is alarming. Educational leaders need to be concerned with the participation rates of this group of students and explore why their rates are low. All of the barriers to participation must also be examined and this includes factors not controlled for by this group of students. This may include the level of education and training that is given to peers of these students in anticipation of their inclusion into school-sponsored clubs and activities. If specific efforts are not given to this, the opportunity for students to be included and retained in clubs and activities may be lost. This may have a devastating impact on current and future participation rates.

## Conclusions

The results of this study indicate that participation of students who receive special education services and participate in a school-sponsored club or activity does have impact on student graduation rates for some students. Previous research indicated that student involvement had a positive impact on a student's educational achievement.

### *Graduation Rates*

Students who receive special education services are not meeting the state targets for four-year cohort graduation rates. State targets for special education four-year cohort graduation rates were set at 80%. The statewide average during the graduation years from 2012-2015 was 53.53%. The two rural school districts that comprised the sample in this study had an average four-year special education cohort graduation rate of 42.61% collectively between those same years (Michigan Annual Performance Report, 2015). This also fell below the state average as well as below the state established benchmark of 80%. Educational leaders have significant shortfalls to try to recover from in these areas at the state and local levels.

### *Participation Rates*

Data from the NLTS-2 study indicated that on average 76.8% of students who have a disability in the areas of learning disabilities, emotional disturbances, and other health impairments reported as participating in at least one extracurricular activity for the year surveyed. Data from this study reflected that students with a learning disability had a participation rate of 57% while students receiving services for other health impairments had a 71% participation rate, followed by students who receive services for an emotional impairment at 33%. Students in the sample fell below the participation rates established by the NLTS-2 study.

Students with an emotional impairment had participation rates that fell far below their peers in this study. While the number of students with an emotional impairment is small, .08 percent of all students who were enrolled in public schools (National Center for Educational Statistics, 2015), his rate is still alarming for educational leaders. Student involvement is a critical way to increase academic performance (Zaff, Moore, Papillo, & Williams, 2003). If only 33% of students with an emotional impairment are utilizing this participation opportunity it leaves a substantial gap in how many students can actually benefit from participation. Students with an emotional impairment can have several behavioral characteristics including inappropriate behavior as well as being unable to build and maintain social relationships (Smith, Polloway, Doughty, Patton, & Dowdy, 2016). This may lead to this group of students being more resistant to activities that require additional social involvement. Educational leaders must acknowledge this as well as see the low participation rates and make deliberate efforts to increase participation rates for this group of students.

### *Effects of Participation*

In the areas of students with other health impairment and emotional impairments no statistically significant data was established. Although, findings from this study did indicate that the variables of GPA and participation in a school-sponsored athletic activity for students who receive special education services for a learning impairment contribute significantly to diploma status. Students in the sample of this study who receive services for a learning disability are almost three and a half times more likely to graduate from high school in four years with a high school diploma than students who do not participate. Scott, Planty, and Thompson (2005) conclude, “There is ever-increasing evidence that school athletic participation is positively

associated with many educational, labor market, and health outcomes” (p. 2). School-sponsored athletic activities do require students to undergo frequent eligibility checks. While this may be a limiting factor for some students, it is also a way for educational leaders to incentivize positive academic achievement for students who wish to continue to participate in these activities.

Additionally, school-sponsored athletic activities also meet frequently with most athletic teams meeting five to six times per week while in season. Astin found that, “the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program” (Astin, 1999, p. 519). Thus, the increased frequency and time spent in the athletic activity might account for why this was the only significant participation variable in any of the models for overall academic achievement. The academic clubs offered by the schools in this study did not provide the same amount of meeting time or frequency as the athletic activities did. The amount of student time and frequency of involvement elicited by involvement in athletic activities may play a vital role in leveraging student involvement that has impact on positive academic achievement.

### Recommendations

The following recommendations are made as a result of the findings of this study:

Participation in school-sponsored clubs and activities for student who receive special education services and attend the schools in this study’s sample were below the rates found in the national NLTS-2 study. Findings from this study support the fact that high school graduation rates benefit from participation in school-sponsored clubs and activities. It is troublesome to know that many of our students are not able to or simply are not taking advantage of this resource. Educational leaders need to acknowledge this shortfall and take action to boost

participation numbers of students in order to maximize the benefits that are a result of student involvement. Leaders need to ensure there is a variety of clubs and activities offered. They must also support efforts to actively recruit and retain student membership. Leaders cannot expect that simply offering opportunities will be enough to attract students to them. This is especially true for students who may have additional needs and struggle with school success. School-sponsored clubs and activities need to actively seek out students and promote the benefits of involvement to students. Ideas such as highlighting clubs and activities during school assemblies and at designated times throughout the academic day can help provide exposure and understating to students. Dedicating one portion of a day each semester for students to meet with club representatives during the school day, such as a participation drive, could also help increase exposure for students. Each of these are very low level investments for the school district, but may yield great returns. In addition, it allows proud school-sponsored club and activity leaders and members an opportunity to showcase their skills and dedication to their peers.

School-sponsored clubs and activities will need financial support in order to grow and flourish. District resources should be explicitly reserved for the advancement and preservation of school-sponsored clubs and activities. This may include providing new equipment or promotional materials to support the club and activity.

Data from this study indicated that students who are emotionally impaired have the lowest rates of participation in school-sponsored clubs and activities when compared to their peers who also receive special education services. Without participation in the club or activity a student will be unable to realize the possible positive academic outcomes. To further complicate matters, students who have emotional impairments many times struggle with appropriate peer relationships (Smith, Polloway, Doughty, Patton, & Dowdy, 2016). Educational leaders need to

specifically target this population of students with strategies that will facilitate their participation in school-sponsored clubs or activities. To do this educational leaders may have to provide strategies that help break down social barriers that may be in place for students with emotional impairments. One such strategy may be to provide intentional peer-to-peer supports. Increasing the variety of school-sponsored clubs and activities may be an additional way to increase involvement. Astin's (1984) theory of student involvement indicates that curriculum must prompt investment of energy on the student's behalf. School districts who have a narrow selection of extracurricular options for students to invest in are then limiting the entry points for students into these activities.

Additional consideration needs to be given to the structure of the activity or club that is offered by the school as well. Educational leaders need to ensure that efforts are made to increase participation, but efforts must also be made to make certain that the coaches, leaders, and students who participate in the clubs or activities are ready to receive individuals who may have a disability. If the members of a group are not trained and made aware of how they can encourage and incorporate a student with a disability the climate of the school-sponsored club or activity may not be supporting environment. Many students are formally trained on areas of disability and social interactions in the classroom environment, but the training needs to be extended to the environments of school-sponsored clubs and activities as well. Clubs and activities provide a unique opportunity for students to develop, practice, and promote inclusion by the very nature of their locations and objectives. This unique opportunity needs to be emphasized by providing specific training that assists coaches, leaders, and students to apply skills for inclusion in their school-sponsored club and activity environments.

Educational leaders can easily reference current models of inclusion in clubs and activities that exist outside of the traditional school setting. One exemplar in this endeavor is Special Olympics, which has been a champion of participation for students with disabilities since 1968. Special Olympics has furthered their mission of inclusion with the development of Unified Champion Schools as a U.S. national project that is funded by the U.S. Department of Education. This initiative includes core activities that aim to create youth leaders that foster positive school environments through inclusion, care, and respect. This initiative and others like it create a framework or even an area for future collaboration for educational leaders. Leaders do not need to independently create resources that promote student training and inclusion. Expansive models are already in existence and school leaders need to make dedicated efforts to introduce and support these models within their current school-sponsored clubs and activities.

The two schools in this study collectively only offered one social activity for all students. Educational leaders need to consider expanding the type and amount of school-sponsored clubs or activities that are offered in their districts. This is increasingly important in the area of social clubs and activities, as this is an area of offering that is currently very limited and almost nonexistent. Students need to be given a wide variety of clubs and activities in order to meet their interest areas. Educational leaders need to direct efforts to meet students where they are and not force a prescribed club and activity upon them. In other words, if students are polled and leaders find pockets of areas that students are interested in, it only makes sense to develop opportunities in this area. Similarly to students, school district staff members have interest areas and areas of expertise outside of the core curriculum. District leaders need to tap into the passion areas of the school staff members and promote their leadership of a club and activity in this area if there is an alignment to an interest area indicated by the students. This will harness interests of

both stakeholders that are already in existence. This will also increase participation levels as a club and activity will be utilized to promote and provide opportunity to an interest that previously exists. District leaders are not forcing interests and ideas upon students in this scenario, but rather providing opportunity and building a bridge for access.

Training of parents, staff members, and school-sponsored club and activity facilitators is also an area of need. This study has supported the work of Astin (1999) and found that involvement in extracurricular activities can have a positive impact on a student's educational outcomes. However, school district leaders must first ensure that students choose to participate in these clubs and activities. Leaders must also make steps to assist retention of students who have already joined a club or activity. Activity and club leaders need to be made aware of the educational benefits and be provided training to support student involvement and retention. If a student is not supported in their efforts they may quickly turn away from participation in that activity or club as well as any additional clubs and activities that may benefit them in the future. When a leader of a club and activity creates a barrier for a student, even if it is unknowingly, the student may choose to no longer participate and this may create increased apathy towards involvement in future opportunities. Training must occur early and often for club and activity coaches and leaders. Inclusive practices should be embedded in each training these facilitators receive. The idea of creating inclusive strategies and supports can be offered as a separate training, but may hold increased value when it is incorporated into the core training with other elements such as district policies and procedures, CPR training, and sport specific rules meetings.

School districts need to provide formal training to leaders of school-sponsored clubs and activities that highlight exceptional learners. This training should include awareness and

knowledge of special education disabilities and what supports are made possible to students through school services. The supports can and need to be available to students during the regular school day as well as at school-sponsored extra-curricular events. School-sponsored club and activity leaders may not have the needed knowledge to promote involvement of exceptional learners in their activities. Often times it can be intimidating to leaders, as they may not know how to interact with students who have special needs. Training would provide knowledge and support for leaders to feel comfortable and even increase their desire to work with students who may need additional supports. Additionally, parents and students need to be made aware of what supports are available to them in order to participate in a school-sponsored club and activity. Smith, Palloway, Doughty, Patton, and Dowdy (2016) suggest that in order to meet the needs of students who receive special education services, the educators and parents must be partners. Communication is pivotal to this partnership. Parents and students need to have open communication from the school district leaders as well as school-sponsored club and activity leaders in regards to what participation looks like and how they can access it. This also means leaders will need to serve as a facilitator for providing reinforcement and encouragement to students and families.

Logistics and financial issues may be a factor that limits student participation. This study was unable to control for these variables, but educational leaders must address awareness of these issues. Rural districts may have increased logistic and financial pressures for stakeholders as resources are spread out geographically. This provides a challenge for access to school-sponsored clubs and activities. Students may not have the financial resources to afford equipment or participation fees. Educational leaders need to develop strategies to combat these issues and ensure students are aware and have access to these strategies. This may include

equipment banks in which donated or gently used equipment is stored for students who may need them in the future. Endowed scholarships may also provide an opportunity for students to overcome participation fees that would otherwise create a barrier to involvement. Busing for students who participate in school-sponsored clubs and activities outside of the regular school hours also needs to be considered. While this may be an economical struggle for school district leaders, options such as satellite busing to limited locations in the district may provide enough support to allow a bridge for students to participate.

Athletic participation is unique in its school-related requirements. The Michigan High School Athletic Association (MHSAA) requires school districts to perform eligibility checks frequently. Additionally, local school district boards of education members create policies for eligibility requirements as well as systems of tracking, monitoring, and reporting progress. Having a school related requirement, such as GPA, in place in order to allow student participation in a club and activity may help to increase accountability for students and activity leaders. Eligibility checks ensure that current academic performance is reported to students and activity leaders with frequency. This provides the opportunity for discussions about academic performance and needs of the student to take place between students, activity leaders, administration, and parents. Additionally, athletic activity leaders may be more inclined to provide supports such as study sessions when they are aware that a need is present for their students. The practice of using eligibility requirements may be extended to other forms of academic and social clubs in order to utilize the same benefits. Caution needs to be used to ensure that placing additional requirements on participation does not serve as an additional barrier for students and inhibit them from initiating participation in the club and activity.

Educational leaders must go beyond current practices to invoke new ways to meet student graduation needs. This may include efforts by educational leaders to support participation in school-sponsored clubs and activities an avenue that is easily used to have meet these needs. Leaders may need to change current practices or even develop additional training to elicit the changes that need to be made to support student involvement.

### Future Research

This study supported the positive effects that participation in a school-sponsored club or activity has on high school graduation. Although, many more questions for inquiry emerged during the course of the study.

Given the relatively small sample size of this study, this study needs to be expanded to incorporate additional students in an effort to further understand the effect for each group of students in the study. Increasing the number in the sample for each disability, area may lead to further discover of statistically significant data. A follow up study may be expanded to additional cohorts of students or the sample may be expanded by identifying similar school districts and adding student level data from the same cohorts to the data already collected in this study.

This study did not look at what factors may limit student participation. Each of the two schools in the study sample was a mid-sized, rural district. Transportation, student-employment, student socioeconomic status, financial limitations, and student interest are all factors that need additional inquiry.

Using qualitative research methods to investigate why a student did or did not participate in a school-sponsored club or activity would provide further insight into the factors that promote

or inhibit participation as well as student academic achievement. A follow-up study that investigates factors that lead to student persistence or willingness to participate would aid in providing depth to the issue of student participation and graduation.

Additional studies that look at participation are needed. Duration and intensity of participation is a factor that is supported by Astin's (1984) theory of student involvement. A follow up study that tracks the hours of involvement and requirements of involvement across multiple school-sponsored clubs and activities would help to inform educational leaders about participation issues.

This study looked at students who graduated with a high school diploma in Michigan versus those who did not. Student completion of a certificate of completion or General Education Diploma (GED) for this study was not categorized as graduation from high school. Additional research may separate these categories with analysis related to school-sponsored club and activity participation. Completion of high school by alternative means such as a certificate of completion or GED may still have a profound impact on a student's future development. Future research may explore these factors and provide additional insight to student participation.

### Summary

Feeling powerless to help a student achieve success is a feeling that never vanquishes. Watching someone struggle at the age of 15 or 16 and knowing it may forever impact their perception of self as well as their future employment and financial success is debilitating. For this researcher, that feeling lit a fire to search for answers. This fire has led to research that looks to help educational leaders, and ultimately students, understand the issues that face them and to employ real-time strategies that can be used to benefit everyone.

The purpose of this study was to examine the relationship between the graduation rates of rural high school students who receive special education services in the high incidence categories of learning disabilities, emotional impairments, and otherwise health impairments and their participation in school-sponsored clubs and activities. The focus of this study was to examine the impact that extracurricular participation has on graduation rates of students with disabilities as well as to examine if the type of extracurricular activity has an influence graduation rates of students with disabilities.

The results of this study will be shared with school boards, administration, school club and activity leaders, students, and community members in an effort to increase awareness and provide actions steps. The data should be used to help highlight issues and resources that exist to help all students achieve. It is hoped that the findings of this study will help elicit robust discussions about student involvement and success and place a high value on each and every student in our schools.

Additionally, training and consultation for educational leaders, coaches, activity facilitators, and students will be created to address areas of need that have surfaced as a result of this study. This training and consultation can be used as a standalone service provided to stakeholders. Although, it is hoped that the training will be incorporated into additional policies and practices that are already taking place in organizations. Inclusion should be viewed as a core component of any organization and not just an additional element. Students with and without disabilities as well as activity leaders and coaches need to be supported in their participation as well as how to react to and initiate participation of others in inclusive environments. The training should incorporate a foundational knowledge of disabilities as well as skills and strategies that can be employed to benefit all stakeholders. The benefits of participation and

involvement stretch far beyond the individual with a disability. Every child deserves to participate and grow in an inclusive environment. Educators have a duty to establish support for inclusive participation.

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