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The Impact Of Least Restrictive Environment (Lre) On Special Education Students Academic Growth In The State Of Indiana

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THE IMPACT OF LEAST RESTRICTIVE ENVIRONMENT (LRE) ON SPECIAL EDUCATION STUDENTS' ACADEMIC GROWTH IN THE STATE OF INDIANA

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ABSTRACT

The purpose of this study was to determine how placement, professional development, and the years of experience of special education teachers impacted the standardized test scores of special education students. This was done by comparing the type of placement of students, mainstream (80+% of the day), co-teaching, separate classroom (100%) and resource (40–60% of the day) in the state of Indiana. A survey was sent out to all public and private elementary and middle level special education teachers in the state of Indiana as of Summer 2022. Data were collected from the individuals that responded to the surveys. Teachers responded with their years of experience, the primary means of instruction in their school buildings, and the hours of professional development that general education and special education teachers received on work with special education students. Inferential statistics data were used to determine if there was a significant difference on ELA and Math standardized test scores. Null 1 and 2 were tested using an independent sample *t*-test to determine if there was a significant difference in the dependent variable among two independent variables with two levels. Null 3 utilized a simple linear regression model to determine if the number of years of experience would predict ILEARN performance. As a result of the data analysis, the nulls were retained, and there was no significant difference found in ELA or Math standardized test scores based on the placement of special education students, professional development provided to teachers, or years of experience in the special education classroom.

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CHAPTER 1

INTRODUCTION

What is the best placement for special education students? The debate no longer focuses on whether students with disabilities should be allowed access to the general education classroom, but rather whether 100% inclusion in all cases is always in the child's best interest (Michaud & Scruggs, 2012). Kauffman and Hung (2009) stated that special education should occur in a general education classroom as often as possible, but the focus should be on improving a student's learning, not necessarily the location in which they are instructed. Is mainstreaming over utilized to the point that special education students are no longer receiving the academic supports that they need to show adequate academic growth, just to ensure that they are receiving social interaction with their peers (Bateman et al., 2007)? This is not a new problem, but one that has been reviewed continually in case conferences and by the U.S. courts (Bon, 2009). Since the passing of the Individuals with Disabilities Education Act (IDEA) of 1990, there has been a drastic increase in the number of special education students mainstreamed into general education classrooms (Fletcher, 2009). School corporations place special education students in the general education classroom based upon various influences rather than what is best for a student academically. Across the nation, inconsistency exists regarding special education student placement which affects the academic performance of schools (Gottlieb et al.,

n.d.).

The teaching of special education students needs to be "intensive, explicit, should be delivered in small groups, and should be closely monitored" (McLeskey et al., 2011, p. 50). Zigmund and Baker (1995) and McLeskey and Waldron (2002) agreed that this instructional format would be best for special education students in the areas of reading and math and would help close the learning gap between special education and general education students, but research shows that this form of instruction is not utilized by most general education instructors. Keef and Moore (2004) stressed that many of the shortcomings in general education classrooms stem from the lack of training general education teachers received in their undergraduate studies to prepare them for instructing special education in an inclusion setting. Fowler et al. (2019) discovered that most of the special education teachers that they interviewed considered themselves equipped to instruct students with exceptional needs, but only a handful responded that paraprofessionals and general education teachers were equipped to educate and assist the same students effectively. Hamilton-Jones and Vail (2014) suggested that another important element to teaching general and special education students is collaboration, a component that is critical to teaching and learning. Bon (2009) noted that federal legislation guides the educational options for special educational students, but ultimately it is up to the states to determine how public-school systems implement Free Appropriate Public Education (FAPE) and the Least Restrictive Environment (LRE).

Background of the Problem

Since the creation of the IDEA legislation in 1990, there continues to be a push to move special education students away from self-contained classrooms to the general education classroom or the LRE. Fowler et al.’s (2019) study indicated that in a self-contained room,

students were taught based on their current academic levels and the curriculum was catered to their individual needs. Many students in self-contained classes were also taught by educators specifically trained in best practices for working with students with exceptional needs. Many schools surveyed had seen an increase in the placement of special education students in self-contained classrooms and full inclusion. Today, special education students are assigned to the general education setting with accomodations until inclusion is shown to no longer be advantageous (Bateman et al., 2007). "Over the past 30 years, the United States has placed a higher percentage of students with disabilities in general education classrooms (80% or more of the time). However, progress has been incrementally slow" (Giangreco, 2019, p. 23).

Statement of the Problem

Has the push for increased time in LRE created a proficiency gap for special education populations? Are these students being best served under this mandate? Bon (2009) noted that the Supreme Court acknowledged the IDEA mandate “to educate handicapped children with non-handicapped children whenever possible” but they failed to provide a specific test or clear guidance to schools with respect to decisions about LRE and the educational placement (p. 4). With a greater push for LRE in special education, students are taught by a content area teacher, sometimes with an aide in the room, at the student’s grade level. This format does not provide the same one-on-one or small group instruction and the material is not taught at the student’s current level of proficiency. McLeskey et al. (2011) wrote that there is controversy concerning where learning takes place when the focus is based on location and less on the method in which information is being relayed to the student. As an illustration, if a student is struggling to master basic third grade-level math skills, instead of continuing to work at their academic level, they are

placed in an Algebra I class with other peers their age.

> Policy makers, educators, and the general public alike hold the common vision for inclusive education in the LRE, and yet the infrastructure to enact such a vision has remained underdeveloped to this day in the United States, particularly with respect to content specific instruction such as mathematics. (van Ingen et al., 2018, p. 178)

Menard (2011) mentioned that a special education student may not be served best in a general education setting when accommodations are not adequate to educate the student. Is this what is best for a special education student under the mindset of LRE or should they be taught at the level that will have the greatest impact? Gottlieb et al. (n.d.) discussed that although there is a lack of consistency concerning the benefits of the general education placement, students who have disabilities are mainly enrolled in this setting due to the IDEA mandate that placement be in the LRE. Bon pointed out that determining whether the best placement for a child with a disability is in a general education classroom or in a separate educational setting is a controversy that is frequently contested in administrative due process hearings and in federal courts. The reality of IDEA is that there is a higher value on the social and emotional piece and less on academic achievement (Rooney, 2019). Rooney (2019) noted Chief Justice John Robert's interpretation of FAPE and IEPs in the court case *Endrew v. Douglas County Schools* was ultimately, at the end of the day, does the location of a child's placement result in suitable academic progress?

Purpose of the Study

The purpose of this quantitative study is to determine if special education teachers in the state of Indiana believe that students with special needs are being provided the best support through the LRE. Are special education students' needs best met in the mainstreaming, pull-out

programs, or co-teaching environments? Along with that question, are special education teachers receiving appropriate professional development to best prepare them for the instructional needs of special education students?

Bon (2009) stressed that legal scholars and courts erroneously portray inclusion and mainstreaming as interchangeable terms with LRE. The disconnect between legal mandates and philosophical expectations regarding educational placement decisions promotes tension among educators and parents and leads to the misinterpretation of IDEA statutory requirements, particularly with respect to the LRE mandate. Demonte (2015) found the shortage of teachers has also placed an undue burden to educate students on underqualified special education staff. This has had a dramatic impact on the quality of teachers working with special education students and these students' overall academic performance. It is important to ask what steps need to be taken to make the location of learning somewhere students of all levels can reach adequate academic achievement (Kirby, 2017). IDEA outlines that special education students are educated in the location that best fits their individual needs. IDEA outlines who is involved in the decision-making process. No individual or group should be able to dictate the location of instruction, including the student's school, corporation, or state legislative mandates outlining how many special education students should be placed in a general education classroom a certain percentage of the school day. Placement is especially important if the special education student is falling behind in their academics in a particular learning environment. If that is the case, then the location of instruction needs to be re-evaluated to provide the student with more individualized

instruction to allow that individual to understand better the material being taught in the regular classroom (Gilmour, 2018).

Significance of the Study

This study should help legislators, parents of special education students, administrators, and advocacy groups better understand the lasting impacts of IDEA. Do school leaders need to reassess the instructional practices of special education students to ensure that they are mastering elementary concepts before being placed in advanced courses? The evidence from this study should help administrators and teachers to identify better the most effective form of instruction for students with special needs. I have not discovered any significant research in recent years on teacher perspective on the impact of the placement of special education students. There are also not any studies specifically for the State of Indiana. Universities can help by preparing all teachers in best practices for graduating teachers by helping them learn how most effectively to instruct and facilitate students with special needs (Young, 2018). School administrators will help their teachers become more effective by creating opportunities for professional development and planning between departments and the special education staff. A study completed by Fowler et al. (2019) concluded that most special education teachers surveyed considered their special education department leaders and special education directors to be more equipped and understanding of work with special needs students and their IEPs than principals at the building level or leadership at the central office. The researchers concluded that greater collaboration was needed between the leaders of special education and building leaders to provide the necessary instructional support to help students be successful.

Scruggs and Mastropieri (1996) determined that most general education teachers believed they needed much more training in the classroom for mainstreaming to be successful. Parents

and students can also learn from this information to help schools better place students with special needs based on what is going to be the greatest social and academic benefit for students. “Both the questioning of the foundations of the LRE mandate and the search for a workable judicial standard demonstrate that the LRE mandate is ripe for both judicial and legislative reevaluation” (Rooney, 2019, p. 313). Rooney (2019) stated it is important that special education professionals do their best to identify appropriate LRE for students. These educators are tasked with legal requirements to follow when determining where students will gain the greatest academic benefit. Schools have a significant role in determining the most academically beneficial LRE for students. It is important that students are appropriately placed, although there is always the possibility that a special education student will cause a disruption to the learning environment of a general education setting (Samuels, 2017). Rooney (2019) stated that many aspects go into the placement of a child with special needs. The right location for a student is more than just placing that individual in a general education setting.

Research Design

This quantitative study determined if special education teachers perceived special education students’ academic needs were adequately met in a full-inclusion, self-contained, or co-taught classrooms. Also, it determined if special education teachers felt that additional professional development would be beneficial. Lastly, this study determined what impact years of experience have on these individuals' perspectives on instructional practices. The scores from the teacher survey provided baseline data on teacher perceptions of special education student placement, professional development, and experience in the classroom.

Research Questions

I collected data for the following questions:

1. What is the current state of special education placement among Indiana schools?
2. Is there a statistically significant difference based on special education placement among the ELA and Math standardized test performance?
3. Is there a statistically significant difference based on professional development hours among the ELA and Math standardized test performance?
4. Do the years of experience for special education teachers explain a statistically significant amount of variance in the ELA or Math standardized test performance?

Null Hypotheses

The hypotheses for this study are as follows:

$H_0$1. There is no statistically significant difference based on special education placement among the ELA or Math standardized test performance.

$H_0$2. There is no statistically significant difference based on professional development hours among the ELA and Math standardized test performance.

$H_0$3. The years of experience for special education teachers does not explain a statistically significant amount of variance in the ELA or Math standardized test performance.

Definition of Terms

Article 7 (Indiana Department of Education Office of Special Education, 2019) outlines the rules and definitions regarding the legal rights and procedures for students with special needs.

Co-Teaching is a form of teaching where a general and special education teacher are both sharing instruction in a classroom at the same time (van Ingen et al., 2018, p. 173).

Education for All Handicapped Children Act of 1975; Public Law 94-142 passed in November of 1975 outlined rights of children with disabilities and federal funding tied to

assist states in implementing changes to educational practices. This law enacted FAPE, protected the rights of these individuals and their parents through due process, and outlined methods of assessing the effectiveness of programming through nondiscriminatory assessments, enacted a zero-reject policy requiring acceptance of students with special needs, enacted LRE, provided guidelines for Individualized Education Plans (IEP), and required transition planning for students after high school (Murdick et al., 2002, p. 22–26).

Free Appropriate Public Education (FAPE) is the regulations regarding special education and related services that:

(a) are provided at public expense, under public supervision and direction and without charge,

(b) meet the standards of the State Education Agency (SEA), including the requirements of this part

(c) include preschool, elementary school, or secondary school education in the state involved, and

(d) are provided in conformity with an IEP that meets the requirements of Secs. 300.340–300.350 (Office of Special Education and Rehabilitative Services, Department of Education, 2006; Murdick et al., 2002).

General Education is where student is instructed 80% or more of the school day in a traditional classroom (McLeskey et al., 2011).

Highly Qualified Teacher describes specific standards set out for all teachers and includes gaining "full state certification as a teacher" and successful completion of a "state teacher licensing examination" (Rogers & Johnson, 2018, p. 2).

Inclusion as a specific term is not mentioned in any U.S. educational legislation; however, it is a practice originated by special educators, disability activists, and parents of children with disabilities (Aitken et al., 2012, p. 2). Inclusion is usually regarded as the placement of special education students in general education settings (Sailor & Roger, 2016).

Individualized Education Plan (IE) is a written statement for a child with a disability that guides the instructional decisions for a child. A document resulting from a collaborative effort of the parents, the school personnel, and other service providers. It describes the abilities and needs of the child and prescribes what services must be provided and determines the setting where education should occur to help the student meet their educational benchmarks (Murdick et al., 2002, p. 25, 76–77).

Individuals with Disabilities Education Act of 1990 (IDEA) is the renamed Handicapped Children's Act under its reauthorization in 1990 otherwise known as P.L. 101-476 (Murdick et al., 2002, p. 27).

Least Restrictive Environment (LRE) is a provision, according to IDEA (2004) that specifies that a student with a disability "be educated to the maximum extent appropriate with peers without disabilities" (Sumbera et al., 2014, p. 270).

Mainstreaming— even though Congress has mandated development of an IEP for each child receiving special education services, it has only expressed a strong preference for the LRE (Murdick et al., 2002, p. 102). The term mainstreaming is not identified in the legislation, although it is often used synonymously with the term LRE. Mainstreaming is the educational practice of implementing the LRE requirement. Therefore, mainstreaming must only be considered to implement an appropriate IEP and accomplish the goals identified for each child.

Paraprofessional is an individual who works under the supervision and direction of licensed teachers or related services personnel to assist in areas that relate to personal, social, and instructional needs. (Indiana Department of Education Office of Special Education, 2019, p. 14).

Pull-Out students are educated 40–70% of the day in the general education classroom. *(*McLeskey et al., 2011)

Separate Class/Separate School is when a student is educated less than 40% percent of the school day in the general education classroom and placed in other restrictive settings (McLeskey et al., 2011).

Role of the Researcher

After spending seven years teaching students with special needs and working directly with case conference committees as an administrator, I observed firsthand the impact location has on a student's academic success or failure. I have had the opportunity of working in districts that have taken multiple approaches to student learning with special education students. I have worked in a self-contained classroom and a pull-out resource room. I have likewise worked in districts where core classes were taught in a co-teaching model with a general education teacher and a special education teacher who was dual licensed in special education and math, or English and the special education teacher taught alongside the general education teacher. Additionally, I had the experience of being told by outside overseeing special education cooperatives that the number of students with IEPs in my district receiving services outside of the classroom was too high based upon legislative mandates and that the district needed to increase the number of special education students in the general education classroom without providing services.

A quantitative study was created to minimize biases. Survey questions were created to identify how placement of special education students correlated with academic performance.

Special education teachers across the state of Indiana were invited to participate in the study regarding the placement of students, instructional formats, professional development of special education teachers, and years of experience. The results of this survey were utilized to answer the research questions.

Summary and Organization of the Study

This quantitative study is organized into five chapters. Chapter 1 included the introduction, background of the problem, statement of the problem, purpose of the study, significance of the study, research design, research questions, null hypotheses, definition of terms, and role of the researcher. Chapter 2 encompasses a review of literature including a history of the placement of special education students, an overview of Least Restrictive Environment, the application of LRE in schools over the years, the influence of LRE on the placement of students, interpretations of LRE, the philosophy of mainstreaming, oppositions to mainstreaming, negative impacts of mainstreaming, proponents of mainstreaming, benefits of mainstreaming, highly qualified staff, and alternatives to pull out programs and mainstreaming. Chapter 3 focuses on the research design and methodology, the purpose of the study, rationale for the research design, survey design, research questions, null hypotheses, trustworthiness of the data collection, data sources and collection, data collection methods, limitations, delimitations, and methods of analysis. Chapter 4 is the analysis of the quantitative study and results. Chapter 5 includes a summary of the findings, conclusions, implications, and recommendations for further research.

CHAPTER 2

LITERATURE REVIEW

History of Special Education Student Placement

Urban and Wagoner (2015) outlined how educational reforms have continued over the past 200 years to meet the needs of students from various socio-economic backgrounds and races. Back in the late 1800s and early 1900s, the reform focus was on ensuring that students of all socioeconomic groups were given the same opportunities for education. Prior to this time, only wealthy families had the financial resources to send their children to private boarding schools or to hire private tutors. This practice would gradually change as the country developed. With the creation of new territories, a requirement was added for townships and cities to begin funding public schools through taxation. This mandate opened the door for white males to receive a basic education. Eventually, these opportunities were also granted to females as the demand for women teachers and a well-educated skilled workforce increased. During the Reconstruction, minority groups such as African Americans and Native Americans gained the attention of politicians and social reformers. Over time, communities, churches, and even the military created schools to educate minority groups. In these institutions, students were instructed in literacy and taught how to assimilate into society. As time progressed, these educational opportunities expanded into post-secondary education. At the university level, each of these groups of individuals were able to obtain professional degrees and learn skilled trades.

Later in the 1900s, another group of individuals began to gain attention of reformers. This started the ongoing educational reforms around special education.

At the beginning of the 20th century, many students with disabilities were taught in separate facilities. A shift began to occur in the United States. In 1948, 357,000 children with disabilities were in K-12 public schools (Fletcher, 2009). By 1976, that number had increased to 4 million because of legislation in 1975 that proposed that students with disabilities should be moved from separate facilities and separate rooms to regular classrooms.

> In 1990 the Individuals with Disabilities Education act was passed bringing about huge changes for students with special needs and general education placements. By the end of the 20th century over 55% of special education students were in the general education setting for most of the day (Fletcher, 2009, p. 280).

Michaud and Scruggs (2012) discussed how special education students were taught in a similar fashion to general education students, but they were not intermingled until recent years when general education would be mandated by the states. Initially, students were taught with their peers until the teacher could no longer handle them and behavior issues resulted in removal to a separate classroom or expulsion. This special education student population would later be included in public school facilities but many times excluded from their general education peers in pull out settings. Wang and Walberg (1994) noted that teaching special education students in separate classes is now viewed as a form of racial segregation. Before the passage of the Education for All Handicapped Children Act (EAHCA), over half of students in the United States were not provided special education services (Douvanis & Hulsey, 2002). Urban and Wagoner (2015) discussed the legislation Public Law 94-142 EAHCA and the significance it played in schools when it passed Congress in 1975. This was the start of the term Free

Appropriate Public Education (FAPE) and the focus on students being taught in locations where they were with other peers known as a Least Restrictive Environment (LRE). A major aspect of this legislation was the mandate that all students identified as special education would have an Individualized Education Plan (IEP). In this document, it outlined what kind of services students with special needs would receive, the location of services, and the academic or behavioral goals that a student would be working towards and rationale for why specific services and educational location were selected. This document would legally bind the school corporation to provide specific services and accommodations to the student to ensure that the student's educational needs were met. At the time of the passing of this legislation, experts had differing opinions on what would be the best format for instruction for students with special needs. Some individuals advocated for mainstreaming of students into classrooms with general education students, while others believed there were better alternatives to instruction such as pull-out programming where students were taught in small group settings with a special education teacher.

Bon (2009) summarized the Supreme Court case *Board of Education* v. *Rowley* from 1982 where the courts reviewed the Education for All Handicapped Children's Act of 1975. In the verdict, the courts determined a FAPE mandate that handicapped children must be taught with non-handicapped students whenever possible. At that point in time, the courts failed to provide guidance on the definition of what the LRE should look like. The courts concluded that placement revolved around a three-factor feasibility test. First, what was the cost benefit of placing a child in a segregated or non-segregated setting? Second, was the student disruptive to a non-segregated setting? Third, what was the cost of placing a student in a mainstreaming setting? The Supreme Court ruling affirmed rulings from the Eighth and Fourth Circuit Courts. The Eighth Circuit Court highlighted that the cost factor and benefit to the student were important

elements of 20 U.S.C. 1412 (5), which states that mainstreaming requirements should be implemented “to the maximum extent appropriate” (Bon, 2009, p. 13). Schools must show that they have tried to make accommodations for a student in the general education setting utilizing all available resources. Schools must also determine if the student will gain academic benefits by participating in the general education classroom setting and compare that to the benefits that a student would have if they were instructed in a special education setting. Lastly, schools need to determine if a special education student’s presence in the room negatively impacts the education of other students that are in the room. If a school can prove that a student fails to meet these requirements, then the school could legally make a case for why the student should receive instruction outside of a mainstream setting. Sailor and Roger (2016) highlighted that the U.S. Department of Education in 1980 began to work towards reducing the number of special education placements focused on pull out programs.

With the passing of the following legislations: *America 2000* under the H. W. Bush administration, *Goals 2000* under the Clinton administration, and later No Child Left Behind (No Child Left Behind [NCLB], 2002) under the G. W. Bush administration, the focus of public education shifted to accountability, state assessments, mastery of standards, literacy rates, and graduation for all. All these legislative mandates put additional pressure on schools to ensure that students with special needs were also meeting these new expectations. There were experts who believed that the best method to keep special education students on track with their peers was to mainstream them into the general education classroom setting where they would be exposed to grade level material from a highly qualified teacher in that content area. NCLB (2002) changed the view of special education students and their learning environment. It also changed the labeling of all students to general education students. This document specified that the focus

would no longer be on educating special education students in pull-out programs, but instead services would be provided within the general education setting.

Aitken et al. (2012) discussed how NCLB (2002) held schools accountable for all students' academic performance including those with special needs. For all students to be successful on standardized assessments it was necessary for them to be exposed to the same curriculum. McLeskey et al. (2012) stated due to NCLB's (2002) and IDEA's focus on instructing special education students on general education curriculum along with Annual Yearly Progress (AYP), many districts began moving a greater number of their students to the general education setting where they would be exposed to general education content taught by an instructor highly qualified in that subject area. The *Endrew v. Douglas County Schools* (2017) court case determined that teachers need to provide concrete evidence for why a special education student should be separated from their general education peers in the "general curriculum, extracurricular activities, and nonacademic or other school activities" (Turnbull et al., 2017, p. 126). This determination will have lasting impacts on decisions that will be made regarding LRE and the setting in which students are served.

> The Supreme Court in both *Rowley* and *Endrew* demonstrated two key concerns for IDEA cases and general interpretation of the statute. First, they made clear that the purpose of the statute is to promote educational benefits for students with disabilities and specifically benefits with an element of progress. Second, the Supreme Court recognized that the requirements of IDEA do not amount to a guarantee of proficiency or growth (Rooney, 2019, p. 307).

Least Restrictive Environment (LRE)

In 1986, the Assistant Secretary for the Office of Special Education in the U.S. Department of Education, Madeline Will, highlighted negative outcomes of pull-out programs and worked to promote the philosophy that mild and moderately disabled students be instructed in general education classrooms (Aitken et al., 2012). In the IDEA legislation, the LRE section addressed that a student with a disability should be taught as much as possible with students without learning disabilities (Sumbera et al., 2014). Persson (2013) documented that many supporters of inclusion argue that special education students have a right to be in classrooms with peers their age in a general education setting. It was also observed that special education students taught with their peers earned higher grades in core content areas due to the higher academic rigor of instruction. Aitken et al. (2012) concluded that those in the United States that promote inclusion consider the teaching of all students, regardless of disability, to be a fundamental right. The push towards inclusion has put the responsibility for learning on general and special educators. These proponents also consider the collaboration between these educators will help disabled students with their academic, social, and life skills.

The LRE mandate has two different interpretations. It can be a way to require that a student is placed in an LRE to meet the student's needs or that a student is placed in the LRE that is available to the student (Carson, 2015). "State-wide LRE guidelines offer a way to reconcile the tension between the FAPE and LRE provisions of IDEA" (Bon, 2009, p. 29). Schools make the determination of a student's LRE, but there are influences within and outside the school that impact the format and extent to which special education students are instructed (Gottlieb et al., n.d.).

Application in Schools Over the Years

Scruggs and Mastropieri (1996) surveyed over 7,300 teachers with 53.4% of general education teachers responding that they were willing to teach students with disabilities. The numbers dropped when the groups of special education student populations became more specific. Only 28.9% supported the mainstreaming of students with emotional disabilities and only 22.8% supported the mainstreaming of students with educable mental retardation (EMR). In the area of academic benefit, 54.4% stated that they believed general and special education students would benefit from mainstreaming/inclusion. Special education teachers (66.6%) held higher expectations for educational benefit compared to general education teachers (50.8%). Most teachers in the study did not agree that they had sufficient time to prepare for mainstreaming/inclusion. Only 29.2% of special education teachers agreed that general education teachers had adequate training and experience to deal with students with special needs in a mainstreaming/inclusion environment. Only 11% of the general education teachers responded that they had sufficient support personnel for mainstreaming/inclusion.

Influences on the Placement of Students

Wang and Walberg (1994) showed that students with disabilities learn better in general education classrooms with inclusiveness, but others have shown that some special education students prefer the use of resource classrooms as a complement to the general education setting. Kauffman and Hung (2009) found that if a student has an intellectual disability, they should be taught in a general education classroom as much as possible. The deciding factor on the location of instruction should revolve around improving a student's learning, not necessarily where they are taught. Bacon et al. (2016) noted that special education students who are educated in the special education classrooms are not exposed to the same caliber of content of general education

students and their overall IEP goals are less challenging than those in the LRE (Kurth & Mastergeorge, 2009).

Section 618 of IDEA requires that states report each year the percentage of students that are instructed in the general education classroom certain percentages of the day: 80% or more, 40% to 79%, or less than 40% (Brock & Schafer, 2015). Schools are also required to identify how much of the day students are being taught in separate schools or self-contained classrooms with a focus on increasing the percentage of special education students being taught in the general education setting. The passing of this legislation put additional pressure on schools to mainstream more students to meet the recommended percentages. Gilmour (2018) noted the IDEA legislation outlines that disabled students need to be taught in general education settings; this mandate can unduly pressure committees in IEP case conferences to place students in inclusion settings to meet these requirements. The requirement to report placement percentages places additional pressures on schools to mainstream a greater number of students into the general education population regardless of need. Every state enacts their own legislation agenda, funding, and beliefs that impact the way LRE is instituted and enforced (Gottlieb et al., n.d.).

Parents also play a crucial role in the LRE of students. Between the years of 1990 and 2007 there was a 190% increase in secondary schools' placement of special education students in the general education setting across the United States. During the same time, the number of special education students in pull-out and full-time special education settings decreased by 49% (Williamson et al., 2019). The Indiana Legislature passed legislation to guide the placement of special education students in the state. Article 7 (2019) outlined in IAC 7-46-4 Data Collection Sec. 4 that each school must report annually the number of students with disabilities by race, ethnicity, limited English proficiency status, gender, and disability category that are receiving a

FAPE, are in a general education setting, are in separate classrooms, are in separate schools or facilities, or are in a private school or private facility. If a school did not meet the criteria directed by the Indiana Department of Education, a school would be required to go back and review or revise its policies, procedures, and practices used to identify and place special education students.

> Although definitive evidence is not available regarding why dramatic changes have occurred in placement practices over the past two decades, it is likely that several federal and state policies influenced this movement towards educating students with disabilities in less restrictive settings (McLeskey et al., 2012, p. 136).

In 2004, schools were sent a memo notifying them that the Office of Special Education Programs (OSEP) would be monitoring their special education populations and would identify schools where they missed critical LRE elements. In many cases schools will place students based on the requests of the parents. “Research suggests that many students with disabilities will not be able to advance along grade-level academic standards with the instruction typically provided in regular classrooms, even with accommodations and supports” (Gilmour, 2018, p. 8). State and federal assessments have also played a role in the placement of students into the LRE with hopes that these students will meet the legislated benchmarks. Those in opposition of mainstreaming focus on the adverse effects mainstreaming has had on academics and the increase in students leaving school before graduation (Bateman & Bateman, 2014).

Interpretations of LRE

Many school leaders since 1970 have struggled to interpret and place students based on the policies and mandates outlined in FAPE and LRE (Sumbera et al., 2014). School principals must make adjustments in their decision making regarding students with special needs following

IDEA of 2004 compared to NCLB (2002), due to the shift of focus from the placement of students to accountability of academic results. This legislation changed the way general and special education were implemented for students with special needs along with providing additional training for teachers (Turnbull et al., 2007). In 2004, compliance outlined in IDEA shifted away from procedure to outcome-based accountability in line with NCLB (2002) legislation of 2002. The LRE clause of IDEA states that students with disabilities should be included with their nondisabled peers in the general education classrooms “to the maximum extent appropriate,” and that they should be removed from the regular education environment only when this education, even with “the use of supplementary aids and services cannot be achieved satisfactorily” (White et al., 2018, p. iii).

"The lack of empirical studies on the effectiveness of inclusion and the lack of knowledge and awareness of the provisions of special education laws by stakeholders contribute to the issues surrounding inclusion implementation" (Francisco et al., 2020, p. 238). McLeskey et al. (2012) highlighted how the data showed an increase in students with special needs students being mainstreamed into the general education setting following the 1990s. This trend increased in middle and high school settings with the mandates in NCLB (2002) and IDEA requiring teachers to be highly qualified in their content areas.

Philosophy of Mainstreaming

Bon (2009) stated that a child with a disability should not be removed from their age-appropriate general education classroom based on modifications needed for general education curriculum. Fletcher (2009) noted that IDEA is worded in such a way that special education students are expected to be educated in the general education classroom setting. Gottlieb et al. (n.d.) stated that even though the IDEA legislation did not assume that all special education

students should be placed full-time in a general education setting, there is a strong preference for such placement and access to general education curriculum. Section 300.320 (a) (5) in IDEA requires the school to provide written documentation in a student's IEP outlining why a student is not participating in the classroom with their general education peers. Those who advocate for full inclusion defend the right of special education students to be taught in full-time general education classrooms as part of their basic civil rights (Lapisky & Gartner, 1996). Brock and Schafer (2015) identified that the location of a school influences the placement of students. If a student is taught in a rural setting, they are more likely to be mainstreamed into a general education classroom than if they attended school in an urban setting. This could be due to smaller class sizes and lack of special education staff in a rural school. Coier and Causton-Theoharis (2011) also determined that students attending schools in regions with low socio-economics were more likely to be mainstreamed than if they attended a school with a higher per student spending on students in special education. Schools with larger budgets can hire additional highly qualified staff to educate and support students with special needs.

Legislative directives in the years ahead need to clear up the decision-making process for disabled students regarding the location of instruction. This legislation should include specifics on what IEP teams need to consider when making decisions, tracking student progress, and determining changes based on data (Kurth et al., 2019). It is important that two components are in place for the mainstreaming to work. There must be an effective instructor along with appropriately implemented LRE for students to be successful (Giangreco, 2019). "LRE is widely accepted, but there is still controversy over its interpretation and application. The biggest issue is balancing the time a student is in the classroom with academic outcomes" (McLeskey et al., 2012, p. 132).

Opposition to Mainstreaming

A major controversy in the field of special education worldwide at present is the move toward the inclusion of all children with special education needs in mainstream schools. Instead of focusing on placing students in a full inclusion setting, IEP teams rather need to look at what academic achievements the student should achieve (Hornby, 1999). The general education setting was not enough to meet the needs of special education students; therefore, special education programs were created to fill that void (Florian, 1998). A shift away from special education services will remove provisions that were intended to benefit students with special needs. The inclusion setting ideology is not consistent among all educational leaders. McLeskey et al. (2011) determined educational professionals have differing opinions regarding how much time learning disabled (LD) students should be taught in the general education setting. Persson (2013) stated opponents of inclusion suggest that placing special education students in general education classrooms will reduce the availability of special education resources. Inclusion opponents claim that general education classrooms are not prepared to address the individual needs of students and that the move is being made to cut the cost of additional special education teachers.

Griffin et al. (2009) highlighted obstacles that teachers of special education students identified in the inclusion setting. These included managing behaviors, creating accessible materials, inadequate planning and discussion with the classroom teacher, and conflicts of interest between the special educator and the classroom teacher resulting in ineffective teaching of special education students in the general education setting. Kauffman and Hung (2009) argued that supporters of LRE do not realize that accessible curriculum, resources, and appropriately

trained teachers for special education students do not always exist in the general education setting.

Galiatsos et al. (2019) stated that most undergraduate teacher preparation programs only require students to take one course preparing them for working with students with exceptional needs. This leads to less than 20% of teachers stating they are adequately trained to teach this population of students. Special education teachers take specific courses on how to handle students with learning and emotional disabilities. General education teachers have felt pressure to educate a larger number of the special education population in the general classroom setting. In many instances, these students spend much of their day in that location, occasionally with the assistance of someone from the special education department (Bryant et al., 2016). Inclusion has not been a positive experience for all educators. Many teachers claim that they need additional instruction and training, and this need adds to the stress and pressure that they feel instructing students with special needs in their rooms (Barnes & Gaines, 2015).

Additional stress from inclusion practices has come from the accountability component placed on general education teachers to ensure that all students achieve academic benchmarks on standardized assessments, which can pose a real challenge for general education teachers (Jiang, et al., 2015). Persson (2013) stated that opponents of inclusion confer that special education students taught in a general education setting is no longer special. They do not believe that the general education classroom and their teachers are prepared to meet the challenges of students with special needs. In their opinion, the move towards inclusion is only a way for schools to cut costs. Kauffman and Hung (2009) concluded that special education students should be instructed in the general education environment as much as possible, but the focus should be primarily on whether a student is learning what they need to know rather than the classroom location or

instructor. The focus should then be not on the location of instruction, but rather on what is the best learning environment for a student.

Sailor and Roger (2016) noted that many general education teachers find it a challenge to teach and modify for special education students when they are focused on moving through a long list of standards and criteria in a timely manner. Special education students require additional time and often repeated instruction to master content that most general education students can learn in a standard amount of time. Sometimes a student's behavior inhibits their ability to learn and negatively impacts the learning environment for the other students in the classroom. At times it is difficult to cover instructional material adequately. Teachers may spend less time instructing and more time managing their classrooms to accommodate students with behavioral issues, greatly limiting the quality of instruction for the remainder of the students in the class (Gilmour, 2018).

Special education students in a general classroom setting are also challenging for teachers as the teachers struggle to engage all students and maintain the pacing necessary to cover all material in a school year. This is especially critical with the demand for content mastery necessary for standardized assessments. Teachers are constantly under pressure to cover multiple standards and work to ensure that students not only learn the material, but also master the concepts. Scruggs and Mastropieri (1996) learned that many teachers' opinions of mainstreaming and inclusion of disabled students was dependent on the severity of the student's disability and how much attention would be required by the general education teacher. Only a small number of teachers surveyed believed that the general education setting was the best location for special education students or that those students would achieve the same social and behavior results that they would in a resource classroom.

> Inclusion is difficult for general education teachers, whose main role is to move students as uniformly as possible through curriculum. Students' disabilities keep them from progressing at the same rate as their peers, leading to grade level deficiencies on curriculum material. When inclusion is at the center of a school's programming, students with IEPs who cannot function in a general education setting often find themselves at tables, in the back of the classroom with a paraprofessional working on "something else." This results in segregation and causes a distraction that is detrimental to the special education and general education students (Sailor & Roger, 2016, p. 504–505).

A focus on inclusion instead of the LRE limits the placement options for a student based on their academic needs. "In other words, the general education classroom is not presumed to be an appropriate placement, but instead it is mandated given the philosophical interpretation of inclusion" (Bon, 2009, p. 10). Scruggs and Mastropieri (1996) analyzed 28 studies between 1958 and 1995. They concluded that only 33% of teachers surveyed believed that mainstreaming students was the best LRE option. Only 28% of teachers surveyed believed they had enough time in class to address special education students' needs and 29% believed that they were adequately trained to teach the special education students. Menard (2011) determined that the general education setting may not be the best location for a student if interventions fail to achieve desired outcomes.

Some educators believe that students with special needs can only be taught effectively in the resource room. In one study by Lalvani (2013), teachers responded that they viewed special education students in the general education classroom as a reward for the student so that they could interact with their peers. This belief may cause some teachers to take the focus off their responsibility to teach those individuals, but rather let them enjoy the social environment since

the educator believes the students will get help later in the special education classroom (Kirby, 2017; Lalvani, 2013). “Students with LD are spending significantly more of the school day in general education classrooms, but we do not know if they are being provided high-quality instruction in these settings that improves academic outcomes” (McLeskey et al., 2011, p. 65).

> The policies of working towards including all children with special education needs in mainstream schools and classes should be abandoned. Instead, the level of inclusion, either locational, social, or functional, should be decided on the needs of each individual child and each situation, not one size fits all (Hornby, 1999, p. 157).

Gimmour (2018) noted that policymakers should stop using location or setting as an indicator of access. Increasing the number of students with disabilities in regular classrooms does not necessarily result in improving their academic outcomes and may unintentionally affect non-disabled peers and general-education teachers. When the number of students with disabilities in inclusive classrooms rises without a concomitant increase in their achievement, it could mean that schools are failing to make individualized decisions regarding placement. This conflicts with IDEA’s mandate and will not result in better outcomes for students.

Thorne (2017) reiterated that some special education students cannot adhere to the academic and behavior expectations in a general education setting. These individuals are best served in a small group or individualized setting that better meets their LRE. There is also a belief by some parents of special needs students that the resource room is the best place for their student to learn (Kirby, 2017).

Negative Impacts of Mainstreaming

Shepherd et al. (2016) noted that although some institutions have promoted inclusion, others have pointed out that the inclusion model will slowly deteriorate the educational

accommodations provided to special education students. Another concern revolves around the collaboration between the special education teacher and the general education teacher. Students with special needs require additional supports to be successful. It is difficult for the two teachers to collaborate leaving the general education teacher, who lacks the necessary skills and often holds negative attitudes towards special education students, to provide instruction. A co-teaching model can become less effective than the use of small group instruction with a special education instructor (Hornby, 1999). Crockett (2000) noted that in the U.S., the focus has become predominately on the placement of special education students in the LRE taking away from the purpose of individual instruction based on what is appropriate for each child. Inclusion decisions should be left to individual student's needs, not mandated in legislation (Hornby, 1999).

The debate today is no longer whether a student with a disability should be part of a general education classroom, but rather, whether they should be in the general education location 100% of the time and if that is what is best for all special education students (McLeskey & Waldron, 2002). Research has not provided sufficient proof that inclusion is beneficial to special education students. The studies that do show positive academic outcomes are flawed in their methods. There is also little proof that the general education teacher has the necessary skills needed to meet the behavior and academic needs of the special needs students (Gilmour, 2018). McLeskey et al. (2011) stressed that there is too much focus on the location a student is placed and not enough emphasis on the quality of instruction. Lee et al. (2010) noted that the best way to predict positive academic performance for special education students is to provide instruction along with appropriate modifications. These accommodations are often implemented more accurately by special education staff. Segall and Campbell (2014) determined that when

educators determined that a student exhibited greater cognitive delay, they were assigned to more restricted learning environments.

Inclusion classrooms have also taken a toll on general education teachers that are not adequately prepared to handle some of the challenging behaviors and academic learning gaps that special education students exhibit. In general education classrooms, where the number of high need special education students have increased without the support of a teacher licensed in special education, a higher number of general education teachers have left the classroom to pursue other career paths (Gilmour, 2018). Special education teachers also feel that they are not supported by administrative staff due to a lack of understanding concerning the complexity of the issues that they deal within an inclusion setting (Young, 2018). Gilmour (2018) noted that the data support that special education students in the general education classroom may be taught the grade-level curriculum, but their mastery of the content does not support a successful transfer of information compared to general education students in the same class. Often general education teachers fail to realize that the reason special education students were identified with a disability in the first place was due to their inability to make academic progress with their peers without appropriate supports and accommodations.

Proponents of Mainstreaming

Studies have shown that special education students are exposed to additional learning materials when they are taught in the general educational setting (Soukup et al., 2007). The purpose of LRE is to make sure that students with special needs can be educated with their peers. The verbiage of IDEA promotes inclusion and the removal of limitations preventing special education students from accessing the general education setting (Kirby, 2017). Although not all advocates for special needs students support the full inclusion model used by many schools

where special education students are in the general education classroom 80% or more of the day, many advocates believe this is a step in the right direction. Proponents are pleased that students with special needs are accepted into general education settings and that they are educated with their peers learning grade level content. Inclusive education has been shown through research and federal legislation to be the primary location for students with special needs to receive instruction (Kurth et al., 2018). Rather than ask whether a special education student should be educated in a general education setting, the IEP committee needs to identify why a student cannot be provided appropriate accommodations in a general education setting with a classroom teacher (Menard, 2011). Inclusion is not something that schools can decide whether they want to implement or not (Kluth et al., 2001).

> While the goal of inclusive education is not necessarily to exit students from special education, our findings suggest inclusive education may provide a richer and varied constellation of supports for all learners in a classroom, thus reducing the need for special education services for some learners with disabilities. It is rather a method that provides equitable opportunities for learning to all students (Kurth et al., 2018, p. 29).

Inclusion is a way to give students who have disabilities and those who do not an equitable option for learning. There has been much progress towards the placement of special education students in the general education classroom, but there is still much work to be done in the areas of curriculum and social equality (McLesky et al., 2012). Segall and Campbell (2014) stated that teachers who have adequate training are more likely to support the inclusion of special education students in their general education classroom.

Benefits of Mainstreaming

Learning Disabled (LD) students who are taught in an inclusion setting achieve higher scores on standardized tests in language arts and mathematics compared with LD students served through a pull-out program (Persson, 2013). A study by Teigland (2009) concluded that special education students in a co-teaching environment saw gains of 31.7% in math at the elementary level and a 12.5% increase in math and 13.8% increase in reading in the middle school. Students in an inclusive classroom also had higher attendance rates than those in pull-out programs. Special education students receiving instruction in general education settings had better outcomes in some areas compared to other similar LD students in pull-out programs. Mainstreaming provides academic and "social and emotional" benefits to special education students (Rogers & Johnson, 2018, p. 3). Soukup et al. (2007) stated that disabled students are given greater exposure to general education material when they are being taught in a regular general education setting. Special education students stated that they preferred the inclusion classroom where they were able to be friends with their peers. Special education students also enjoyed doing the same activities, assignments, and having the same books and projects of their peers (Klingner & Vaughn, 1999). Special education students are placed in LRE per their IEP so that they are able to spend a majority of their day with their peers in a general education classroom (Rexroat-Frazier & Chamberlin, 2018). Aitken et al. (2012) noted that when implemented appropriately, instruction in an inclusion classroom can benefit all students, even those with disabilities and those who struggle academically and socially.

Inclusion is most effective when the placement has a social and physical component to it (Francisco et al., 2020). When schools do not implement a continuous inclusion model, special education students struggle to have interaction with their general education peers that results in

worthwhile experiences for both groups of students (Giangreco, 2019). McDonnell et al. (2006) stated if there are appropriate accommodations in the general education classroom, special education students will be able to make progress towards achieving the goals outlined in the IEP. Special education students learn best when they are taught in the same setting and exposed to the same content as general education students when necessary academic adjustments are provided. The best way to ensure success of special education students in this setting is to build upon past educational attainment and the modification of information relevant to what students with special needs are familiar with (Jenkinson, 2000). “As one administrator described, it takes the support of the [district office] to make [LRE] work because the general community is not really supportive of all these people [with disabilities] being in the mainstream" (Liggett et al., 1996, p. 65).

Highly Qualified Staff

Hamilton-Jones and Vail (2014) noted that the push for inclusion classrooms globally has magnified the need for educators to be better trained in the techniques necessary to meet the needs of special education students to provide equal access to educational material. Limited aides are available for general educator teachers due to financial constraints and limited opportunities for professional development. The lack of aides puts additional strains on teachers who are not adequately trained to work with these special education students. One of the ways that schools can help better prepare these teachers is to reduce stress. Corporation leaders need to work to ensure that these educators are given adequate training and assistance to help them be successful in their classrooms (Gaines & Barnes, 2017).

Suter and Giangreco (2008) identified that a large portion of students with special needs in a general education setting are being taught by paraprofessionals because of extensive special

education teacher caseloads. These individuals have limited training in best teaching practices for special education students. Kirby (2017) noted that one important element to inclusion of special education students is the training for teachers. In order for inclusion to work, teachers need to be adequately trained during their teacher education programs. Young (2018) noted that even special education teachers feel inadequately qualified to teach the diverse group of students. They do not feel that they have enough experiences across the various classroom settings and with the wide range of disabilities that they encounter and are expected to accommodate.

Sailor and Roger (2016) highlighted that it is difficult for general education teachers to keep special education students learning at the same pace as their peers, especially since teachers have a vast number of standards that must be covered in any given school year. This pace of instruction without additional remediation and assistance results in special education students falling grade levels behind their peers. Taylor (2004), Underwood (2018), and Osborne and Dimattia (1994, 1995) noted that schools need to look at the general education setting and work to guarantee that highly qualified staff are available to educate special education students.

O'Conner et al. (2016) described the large portion of general education educators that lacked a clear understanding of the legal expectations of educators in IDEA and Section 504. For students' needs to be met, these educators need a clear understanding of IDEA's expectations and educational requirements. Schumaker et al. (2017) noted that research has proven that special education students who are given access to the general education classroom setting, and curriculum may not get the results intended due to the lack of effectiveness of the inclusion program. A shortage of highly qualified special education staff also exists. This has resulted in an increase of special education teachers with little to no experience teaching on emergency permits that has negatively impacted student achievement (Demonte, 2015). Forlin et al. (1996)

noted that the main factor in the success of mainstreaming is the perspective of the individuals in charge of the students and the educational instruction, the teachers. Teachers also identified one thing that would help them better meet the needs of special education students is additional professional development on real-life scenarios in which general education teachers worked with special education teachers to identify best practices for responding to student issues before they encountered those same situations in a live classroom situation (Young, 2018).

Alternative to Pull-out Programs and Mainstreaming

Sailor and Roger (2016) suggested a school-wide approach as an alternative to pull-out programs and mainstreaming. A school-wide approach is a way to provide all services and supports in ways that will benefit all students. Examples of these methods include learning strategies, positive behavior supports, and transition planning. Rexroat-Frazier and Chamberlin (2018) proposed the method of co-teaching as an alternative for special education students. This format allows special education students to still receive instruction in the LRE. Willard (2019) highlighted the value of having special education teachers bring their vast knowledge of instructional methods to a general education classroom and combine that expertise with the content area knowledge of a highly qualified teacher. This combination results in a win-win for the student with disabilities. Brendle et al. (2017) discussed that even though co-teaching is not specifically a requirement of IDEA, the growing accountability upon general education teachers to meet academic benchmarks has made co-teaching a useful method for increasing student academics and provide more opportunities for special education students to be in the general education classroom toprepare them better for life after high school. For this model to work, the classroom teacher and the special education teacher need to know what their roles are. It is also important that those two teachers work well together and that they have positive outlooks on the

method of teaching. Murawski and Swanson (2001) identified a couple key elements to successful co-teaching between special education and general education teachers. Both teachers need to be involved in the instruction and the creation of lessons before the class period starts. A major benefit to students in a co-teaching model is that the special education teacher in the room understands the individual needs of the student and can make suggestions to the general education teacher to address behavioral and academic concerns. Co-teaching is being utilized more often in middle and high school classrooms to instruct special education students (Willard, 2019).

Four key ideas about co-teaching in high school classrooms:

1) Conditions in high school settings are conducive to co-teaching.
2) The use of various co-teaching approaches depends on the learning objectives of the lesson.
3) Co-teaching is a professional partnership.
4) Co-teaching is a tool for ongoing professional development. (Willard, 2019, p. 80)

Hamilton-Jones and Vail (2014) noted that in instances when the general education and special education teachers can collaborate effectively, there is greater individual assistance, which likely results in higher academic benefits. Co-teaching can be a benefit for students since the general education teacher is an expert in their content area and special education staff have a greater understanding of the accommodations and resources needed to help students with special needs be successful. In the best co-teaching models, the special education teacher and general education teacher work together to provide instruction for all students in the room building upon their own strengths. The secondary level lends itself to a co-teaching model better than elementary classrooms. Vaughn and Bos (2015) stated that many schools have implemented

research-based co-teaching methods in general education classrooms to assist teachers in covering core standard material with all students. Mastropieri et al. (2005) highlighted that the co-teaching method helps students who have various learning needs be able to obtain instruction in a general education classroom. Not only do the special education students gain support from the additional staff, but general education students have also shown academic gains due to the additional assistance and instruction provided.

The biggest benefit to the co-teaching model is that the special education students are exposed to content at the same level of their peers. This method also allows these students the opportunity to interact with their peers in an equitable setting. One model that has been used is that the content area teacher will provide the lesson and then the special education teacher will provide "additional instructional support" over the same material in a format that is more accessible to all students in the classroom (Mastropieri et al., 2005, p. 540). The co-teaching model is most effective when the special education teacher has a general understanding of the content area material, and the general education teacher utilizes best practices and methods for working with special education students (Willard, 2019). Murawski and Lochner (2010) focused on the need for training in co-teaching methods for its success. The teachers need to understand how to collaborate and utilize research-based co-teaching strategies to plan, teach, and assess learning.

Austin (2001) stated that one negative to co-teaching is that the general education teacher often provided most of the instruction in the classroom and the special education teacher can become an observer and merely the individual who makes sure accommodations are made for special education students since the general education teacher is highly qualified in the content area. In some instances, the special education teacher is expected to be secondary to the general

education teacher. Also, if a general education teacher is unwilling to work together with the special educator, the co-teaching method will be unsuccessful (Hamilton-Jones & Vail, 2014, p. 83). In a research study by Young (2018), many special education teachers stated that they did not feel that general education teachers held them to the same experience level as other content area teachers. This led to special education teachers viewing their positions and the students they teach as being sub-par to their co-workers and general education students. Teacher undergraduate programs do not necessarily provide the needed instruction or experience in co-teaching methods (Rexroat-Frazier & Chamberlin, 2018). Fowler et al. (2019) asked over 1,500 special education teachers questions concerning their levels of expertise in the classroom. Only 54% of the respondents felt capable of utilizing co-teaching effectively. They also responded that only 29% of their districts utilized the co-teaching model consistently in their corporations. Hamilton-Jones and Vail (2014) noted that preparation classes helping teachers during the preparation programs learn best practices in collaboration would be beneficial, especially if the program helped the teacher candidates understand the benefits to all students as general education teachers, special education staff, and the student's guardians work together for the benefit of the student.

Four things would better prepare teachers for collaborative instruction:

(a) integrate programs with different disciplines or content areas,

(b) offer classes that teach collaboration skills,

(c) provide opportunities for co-teaching during field placements, and

(d) model co-teaching in the university classroom (Hamilton-Jones & Vail, 2014, p. 78).

Soukup et al. (2007) highlighted the way that the classroom was arranged and how it impacted each child's ability to understand and interact with the material. They concluded that

students who work in small groups or individually with a teacher have a greater opportunity for academic success. Lastly, Brendle et al. (2017) stressed that for co-teaching to be effective, backing and assistance from the school administrators must be provided.

The following tables provide data documenting the proficiency levels of special education and general education students on Indiana's standardized testing platform ISTEP+ and ILEARN from 2014 to 2021. The first table illustrates the number of students proficient and tested from general education and special education populations in the areas of Math and English Language Arts. The second table identifies where students in Indiana were primarily placed during the same time period.

Table 1

Indiana Standardized Test results for General Education and Special Education ISTEP+ 2014 and 2018 and ILEARN 2019 and 2021

	Both ELA & Math Proficient	Both ELA & Math Tested	Both ELA & Math %Proficient
Assessment	N	n	N
General Education 2021 ILEARN	131,341	404,971	32.4%
Special Education 2021 ILEARN	6,032	72,837	8.3%
General Education 2019 ILEARN	175,993	419,957	41.9%
Special Education 2019 ILEARN	8,128	75,628	10.7%
General Education 2018 ISTEP+	240,352	424,938	56.6%
Special Education 2018 ISTEP+	12,995	72,206	18.0%
General Education 2014 ISTEP+	428,127	338,049	79.0%
Special Education 2014 ISTEP+	54,962	23,253	42.3%

Note. Data derived from the Indiana Department of Education's Data Report Archive (n.d.-b).

Table 2

Indiana Special Education Student Placement Data ages 6–21

Year	Gen. Ed. >80%	Gen. Ed. >40%	Gen. Ed. <40%	Separate Class
2019	123,844	15,364	13,455	0
2018	120,220	15,951	13,846	0
2014	107,606	19,521	16,094	0
2012	103,457	21,306	16,391	0

Note. Data derived from the Indiana Department of Education's Data Report Archive (n.d.-b).

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Purpose of the Study

The purpose of this quantitative study was to determine if special education teachers in the state of Indiana believed that students with special needs are being provided the best support through the LRE. Are special education students needs best met in the mainstreaming, pull-out programs, or co-teaching environments? Along with that question, are special education teachers receiving appropriate professional development to prepare them well for the instructional needs of special education students?

Rationale for Research Design

The result of this study was determined utilizing quantitative research. A quantitative study was chosen as a means for comparing current placement and assessment data to the survey results from special education teachers in Indiana. Quantitative data must be collected utilizing specific guidelines for conditions, sample groups and size, various data points, and certain elements to ensure that processes are followed, and proper permission is granted (Creswell, 2008). Creswell and Zhang (2009) stressed that the data collected must be reviewed following specific guidelines and placed in table format so that they are easy for those studying the topic to interpret.

Survey Design

A survey was created to identify the primary means of instruction that is provided to special education students in each teacher's corporation to determine if the location where students spent the greatest amount of instruction has a bearing on standardized test scores. The locations included the resource room, a general education classroom, and a co-teaching setting. Teachers also provided the amount of time that special education staff were provided professional development on best practices on teaching special education students. Lastly, the special education teachers responded with the number of years of experience teaching special education. An online survey was created and implemented in such a way as to not identify individual respondents.

Research Questions

I collected data for the following questions:

1. What is the current state of special education placement among Indiana schools?
2. Is there a statistically significant difference based on special education placement among the ELA and Math standardized test performance?
3. Is there a statistically significant difference based on professional development hours among the ELA and Math standardized test performance?
4. Do the years of experience for special education teachers explain a statistically significant amount of variance in the ELA or Math standardized test performance?

Null Hypotheses

The hypotheses for this study are as follows:

$H_0$1. There is no statistically significant difference based on special education placement

among the ELA or Math standardized test performance.

$H_0$2. There is no statistically significant difference based on professional development hours among the ELA or Math standardized test performance.

$H_0$3. The years of experience for special education teachers does not explain a statistically significant amount of variance in the ELA or Math standardized test performance.

Trustworthiness of Data Collection

"The investigator first gathers and analyzes quantitative data using an instrument to measure the sample of a population. The administration could be correlational or survey design" (Creswell & Zhang, 2009, p. 614). My survey was sent out to current ISU PhD students to determine construct validity to establish if the questions were appropriate for the audience and pertinent to the topic that I am investigating (Ary et al., 2010, p. 410). In my research, the data points have already been established through ILEARN testing, but the survey identified whether there was a correlation between the variables surveyed and the test scores.

Data Sources and Collection

A list of all elementary and middle schools in Indiana were identified utilizing the Indiana Department of Education database (n.d.-a). The two schools in the Tri-Central Community School Corporation were excluded from the study since I am an employee of the school district. A random sample of schools in Indiana were selected by contacting every school on a list of all elementary and middle-level public schools in Indiana. This study focused on Indiana public and private schools. Special education teachers from this sample of Indiana schools received a survey including questions regarding their years of experience, the placement of special education students in pull-out, full-inclusion, and co-teaching environments in their district, and the amount of professional development provided to special education teachers, and

the name of their school for the purposes of tying responses back to student assessment data. E-mail addresses of participants were obtained through the Indiana Department of Education website.

Data Collection Methods

Data were collected using the information compiled in the research in Chapter 2. Prior to the survey being sent out, special education teachers in my district were provided with the survey questions to analyze and provide feedback on clarity and readability. An e-mail was sent out to the selected sample of Indiana special education teachers that explained the purpose of the survey along with instructions on how to complete the questions. The e-mail also reiterated to the participants that their responses were confidential and did not contain any personal identifying information.

Teachers were asked whether the primary means of instruction of special education students in their building was mainstreaming/full-inclusion, pull-out/resource, or a co-teaching model. The special education teachers were also asked how much professional development on best practices in special education is offered to them. The last question asked special education teachers to identify how many years they have in education. The survey remained online for 14 days after teachers had received the e-mail requesting their participation. A follow up e-mail was sent after seven days reminding teachers to complete the survey and to thank these who had already participated. The responses were collected and tied back to corresponding ILEARN test scores from the specific schools where the respondents work to determine if the means of instruction, professional development, and/or years of experience had any impact on student mastery.

Limitations

The data collected in this research included a sample of all special education teachers in the State of Indiana in elementary and middle schools that agreed to respond to the survey. There is the possibility not all teachers responded honestly to the questions that were asked. Teachers may also have struggled to provide acurate information for their school districts from nine years ago relating to data from 2014. The research also did not look at the impact of least restrictive environment on specific students in Indiana. It was a general study of all students with special needs. 2018 ISTEP+ scores were not utilized due to changes in standards between 2014 and 2018. 2019 ILEARN scores were selected as the dependent variable in the study.

Delimitations

The study was limited to elementary and middle schools in the State of Indiana. ILEARN scores from 2019 were utilized as a criterion variable for grades 3–8; ILEARN scores do not include special education student data for non-tested grades. Not all special education placements of students were studied. The impact of instructional locations such as residential facilities and alternative school programs were excluded from the LRE placement data collected.

Method of Analysis

Question 1 was tested using an independent samples *t*-test to look for a significant difference in standardized test scores in ELA and Math for special education students in Indiana based on the LRE placement of students in full-inclusion and co-teaching or pull-out resource and separate classroom settings. Question 2 was tested using an independent samples *t*-test to look for a significant difference in standardized test scores for special education students in Indiana based on the amount of professional development special education teachers receive on best practices with special education students. Question 3 was tested using a simple linear

regression to determine whether the variance in the ELA and Math standardized test scores can be explained by the years of experience teaching special education.

Summary

The purpose of this quantitative study was to determine the impact of LRE placement on special education student achievement on standardized tests. The study also looked at whether the amount of professional development special education teachers received on best practices with special education students impacted their mastery of standards. Lastly, the study looked at the years of experience that a special education teacher had and if there was a predictor of student achievement.

This chapter discussed the rationale for the study, the survey design, and the research questions. The selection process for participation and the means of collection of the data was also discussed. Lastly, this chapter reviewed the limitations and delimitations of the study and the tool utilized to review the data collected.

CHAPTER 4

FINDINGS OF THE DATA ANALYSIS

Introduction

The purpose of this quantitative study was to determine how placement, professional development, and the years of experience of special education teachers impacted the standardized test scores of special education students. This research compared the type of placement of students, mainstream (80+% of the day), co-teaching, separate classroom (100%), and resource (40–60% of the day) in the state of Indiana. Data were collected through a survey sent to all 4,296 elementary and middle level special education teachers in the state of Indiana as of summer of 2022. The survey was created to review the impact of student placement and teacher professional development on special education student academic performance on standardized tests.

Email addresses for all special education teachers was provided by the Indiana Department of Education. The emails included a link to a Qualtrics software survey for the recipients to complete. Some of the emails provided were no longer in use and were returned. While the survey was active, 384 people started the survey (8.9%). Data were collected from 188 individuals that completed the survey (4.5%). These responses were uploaded into SPSS where they were analyzed and compared to 2019 ILEARN results for special education students.

Teachers responded with their years of experience, the primary means of instruction in their school buildings, and the hours of professional development general education teachers and they received on working with special education students. An email was sent to all special education teachers on the IDOE provided email list. Within the email was a link to the survey. The survey consisted of 14 questions [Appendix A]. The first question asked if the recipient was a current elementary or middle school teacher. If they responded "no", the individual could no longer continue with the survey. Eight questions pertained to the LRE (Pull-out 100%, Resource 60–80%, Full-Inclusion, and Co-Teaching) for special education students and asked who primarily provided instruction in the classroom (general education teacher, special education Teacher, or para-professional), and three questions focused on the amount of time that special education and general education teachers received professional development on best practices with special education students. One question asked respondents to state their years of teaching experience in a special education classroom including this school year. The final question asked respondents to provide their school and district name to cross reference with standardized testing data.

Research Questions

1. What is the current state of special education placement among Indiana schools?
2. Is there a statistically significant difference based on special education placement among the ELA and Math standardized test performance?
3. Is there a statistically significant difference based on professional development hours among the ELA and Math standardized test performance?
4. Do the years of experience for special education teachers explain a statistically significant amount of variance in the ELA or Math standardized test performance?

Null Hypothesis

$H_0$1. There is no statistically significant difference based on special education placement among the ELA or Math standardized test performance.

$H_0$2. There is no statistically significant difference based on professional development hours among the ELA and Math standardized test performance.

$H_0$3. The years of experience for special education teachers does not explain a statistically significant amount of variance in the ELA or Math standardized test performance.

Descriptive Data

A total of 188 teachers responded to the survey. Respondents were asked how many years of teaching experience they had teaching special education in Indiana including this year. Teachers were chunked into groups based on years of experience with 56 (29.7%) responded 0–5 years, 42 (22.3%) responded with 6–10 years, 27 (14.4%) responded with 11–15 years, 21 (11.1%) responded with 16–20 years, 17 (9%) responded with 21–25 years, 12 (6.3%) responded with 26–30 years, 5 (2.7%) responded with 31–35 years, and 8 (4.3%) responded with 36–41 years.

Next respondents were asked what was the current primary means of Least Restrictive Environment (LRE) placement for special education students in their school building. A total of 14 (7.4%) responded that students were taught either in a pull-out/separate room 100% of the day. Of those surveyed, 36 (19.1%) responded that students were taught in a resource room 40–60% of the day. A total of 27 (14.4%) responded that students were taught in a co-teaching environment, and 110 (58.5%) responded that students were placed in full-inclusion general education setting 80% or more of the day. In contrast, 19 (10.1%) respondents answered that in 2014, special education students were taught in a separate room 100% of the time. A total of 61

(32.4%) responded that students were taught in a resource room 40–60% of the day. Of those surveyed, 23 (12.2%) respondents answered that in 2014, special education students were taught in a co-teaching environment, and 79 (42%) were taught in full-inclusion general education settings 80% or more of the day.

Of the respondents that indicated that their schools had changed the primary LRE placement since 2014, 18 (9.6%) experienced a decrease in scores of special education students on standardized tests. Some respondents, 73 (38.8%), experienced no change in scores of special education students on standardized tests. A few respondents, 41 (21.8%), experienced an increase in scores of special education students on standardized tests.

Respondents were asked how much input they had on LRE placement of students during IEP case conferences. Teachers responded with the following: 7 (3.7%) had no input at all, 44 (23.4%) had some input, and 71 (37.8%) had a good amount of input. There were some respondents, 66 (35.1%), that made the recommendations for the placement of special education students.

Fifty of the respondents indicated that the current primary means of instruction for special education students in their school building is outside of the general education classroom through either a 14 (28%) pull-out/separate room setting (80–100% of the day) or 36 (72%) resource room (60–80% of the day). The schools that changed the primary LRE placement of their special education students since 2014 indicated that 6 (12%) decreased in their standardized test scores, 20 (40%) had no change in their standardized test scores, 9 (18%) saw an increase in their standardized test scores, and 15 (30%) provided no response. These same respondents indicated that 2 (4%) had no input on the LRE placement of students, 13 (26%) had some input, 21 (42%) had a good amount of input, and 14 (28%) make the placement recommendation. This

same group of individuals responded that 5 (10%) received 0 hours of professional development on best practices with special education students, 20 (40%) received 1–2 hours, 11 (22%) received 3–5 hours, 5 (10%) received 6–10 hours, and 9 (18%) received 11 or more hours. Regarding the professional development that these teachers received, 7 (14%) indicated that it was not at all beneficial, 20 (40%) somewhat beneficial, 14 (28%) beneficial, and 7 (14%) extremely beneficial, and 2 (4%) did not respond. Based on special education students being instructed outside the general education classroom, educators indicated how well this instructional placement prepared students with special needs for grade level mastery of standards. 29 (58%) indicated somewhat prepared, 13 (26%) well prepared, and 8 (16%) provided no response. In the general education classroom, those surveyed indicated the following individuals work primarily with special education students: 26 (52%) the general education teacher, 5 (10%) a licensed special education teacher, 17 (34%) a special education paraprofessional, and 2 (4%) gave no response. If the school utilizes a co-teaching classroom, respondents indicated that percentage of time that the lesson is taught by the general education teacher, 1 (2%) 0% of the time, 2 (4%) 1–24%, 3 (6%) 25–49%, 12 (24%) 75% or more, and 32 (64%) did not respond, indicating that they do not utilize the co-teaching model. The respondents that participate in co-teaching at their school building identified how much planning time is allocated per week with a general education teacher, 11 (22%) no planning, 2 (4%) 1 hour, 1 (2%) 2 hours, 36 (72%) did not respond to the question. If the school utilizes co-teaching between general and special education teachers identified the amount of time that they are provided professional development on co-teaching methods, 31 (62%) 0 hours, 4 (8%) 1–2 hours, 1 (2%) 3–5 hours, and 14 (28%) no response.

One hundred and thirty-seven of the respondents indicated that the primary means of Least Restrictive Environment (LRE) placement for special education students in their school building is inside of the general education classroom through either 27 (19.7%) co-teaching (general education and special education teacher), or 110 (80.3%) full inclusion (general education classroom 80% or more of the day with aides and special education assistance). The schools that changed the primary LRE placement of their special education students since 2014 indicated that 12 (8.8%) decreased in their standardized test scores, 53 (38.7%) had no change in their standardized test scores, 32 (23.4%) saw an increase in their standardized test scores, and 40 (29.2%) provided no response. These same respondents indicated that 5 (3.6%) had no input on the LRE placement of students, 31 (22.6%) had some input, 49 (35.8%) had a good amount of input, and 52 (38%) make the placement recommendation. This same group of individuals responded that 12 (8.8%) received 0 hours of professional development on best practices with special education students, 49 (35.8%) received 1–2 hours, 43 (31.4%) received 3–5 hours, 17 (12.4%) received 6–10 hours, and 16 (11.7%) received 11 or more hours. Regarding the professional development that these teachers received, 15 (10.9%) indicated that it was not at all beneficial, 72 (52.6%) somewhat beneficial, 38 (27.2%) beneficial, and 6 (4.4%) extremely beneficial, and 6 (4.4%) did not respond. Based on special education students being instructed inside the general education classroom, educators indicated how well this instructional placement prepared students with special needs for grade level mastery of standards, 90 (65.7%) somewhat prepared, 35 (25.5%) well prepared, 2 (1.5%) extremely prepared, and 10 (7.3%) provided no response. In the general education classroom, those surveyed indicated the following individuals work primarily with special education students, 66 (48.2%) the general education teacher, 35 (25.5%) a licensed special education teacher, 32 (23.4%) a special education paraprofessional,

and 4 (2.9%) gave no response. If the school utilizes a co-teaching classroom, respondents indicated that percentage of time that the lesson is taught by the general education teacher, 5 (3.6%) 0% of the time, 5 (3.6%) 1–24%, 27 (19.7%) 25–49%, 28 (20.4%) 75% or more, and 72 (52.6%) did not respond, indicating that they do not utilize the co-teaching model. The respondents that participate in co-teaching at their school building identified how much planning time is allocated per week with a general education teacher, 33 (24.1%) no planning, 17 (12.4%) 1 hour, 6 (4.4%) 2 hours, 5 (3.6%) 3 hours, 3 (2.2%) 4 or more hours, and 64 (46.7%) did not respond to the question. The survey respondents that indicated their school utilizes co-teaching between general and special education teachers identified the amount of time that they are provided professional development on co-teaching methods, 78 (56.9%) 0 hours, 20 (14.6%) 1–2 hours, 11 (8%) 3–5 hours, 1 (.7%) 11+ hours, and 27 (19.7%) no response.

Respondents were asked how much professional development time they receive on best practices with special education students each school year. A total of 17 (9%) responded with 0 hours. Of those that had some professional development, 69 (36.7%) responded with 1–2 hours, 55 (29.3%) responded with 3–5 hours, 22 (11.7%) responded with 6–10 hours, and 25 (13.3%) responded with 11 or more hours.

Respondents were asked a follow up question on how beneficial the professional development on best practices with special education students was to them. A total of 22 (11.7%) responded that it was not at all beneficial. Of those who saw some benefit from professional development, 92 (48.9%) responded somewhat beneficial, 52 (27.7%) responded that it was beneficial, and 14 (7.4%) responded that it was extremely beneficial.

There were 86 survey respondents that indicated they received two hours or less of professional development. Among this group of respondents, the ones who indicated that their

school had changed the LRE placement of special education students since 2014 indicated that 7 (8.1%) decreased their special education student scores on standardized tests, 33 (38.4%) saw no change, 17 (19.8%) saw an increase in scores, and 29 (33.7) provided no response. These same respondents provided input on how beneficial professional development was to them on best practices with special education students, 17 (19.8%) not at all beneficial, 51 (59.3%) somewhat beneficial, 9 (10.5%) beneficial, 1 (1.2%) extremely beneficial, and 8 (9.3%) provided no response.

There were 102 survey respondents that indicated they received three or more hours of professional development. Among this group of respondents, the ones who indicated that their school had changed the LRE placement of special education students since 2014 indicated that 11 (10.8%) decreased their special education student scores on standardized tests, 40 (39.2%) saw no change, 24 (23.5%) saw an increase in scores, and 75 (73.5) provided no response. These same respondents provided input on how beneficial professional development was to them on best practices with special education students, 5 (4.9%) not at all beneficial, 41 (40.2%) somewhat beneficial, 43 (42.2%) beneficial, 13 (12.7%) extremely beneficial.

Respondents were asked based on the primary LRE placement of students in the current school year, how well does this instructional placement prepare students with special needs for grade level mastery of standards? A total of 120 (63.8%) responded that students were somewhat prepared. Of those surveyed, 48 (25.5%) responded students were well prepared and 2 (1.1%) responded that students were extremely well prepared.

Respondents were asked in general education classrooms, who primarily works with the special education students? A total of 92 (48.9%) responded that the general education teacher primarily works with special education students. There were 40 (21.3%) who responded that a

licensed special education teacher primarily works with special education students. Of those not taught primarily by a teacher, 50 (26.6%) responded that a special education paraprofessional primarily works with special education students.

Respondents were asked if their school utilizes the co-teaching model, how much of the lesson is taught by the general education teacher? Only 1 (.5%) responded 0% is taught by the general education teacher. A total of 7 (3.7%) responded 1–24% is taught by the general education teacher, 8 (4.3%) responded that 25–49% is taught by the general education teacher, 27 (14.4%) responded that 50–74% is taught by the general education teacher, and 40 (21.3%) responded that 75% or more of the lesson is taught by a general education teacher. Of those surveyed, 105 (55.9%) of respondents did not answer the question indicating that they do not utilize co-teaching in their schools.

Respondents were asked if they participate in co-teaching at your school building, how much planning time is allowed in the school week with the general education teacher? A total of 45 (23.9%) responded with no planning time provided. Of those that were provided some planning time, 19 (10.1%) responded with 1 hour of planning time, 7 (3.7%) responded with 2 hours of planning time, 5 (2.7%) responded with 3 hours, and 3 (1.6%) responded with 4 or more hours of planning time. Of those surveyed, 109 (58%) did not respond to the question indicating that co-teaching is not utilized in their schools.

Respondents were asked if your school utilizes co-teaching between general and special education teachers, how much time is provided for professional development on co-teaching methods? A total of 109 (58%) responded with 0 hours. Of those who had some planning time with a general education teacher, 24 (12.8%) responded with 1–2 hours, 12 (6.4%) responded

with 3–5 hours, and 1 (.5%) responded with 11+ hours. Of those surveyed, 42 (22.3%) did not respond to the question.

Inferential Data

The null hypotheses were designed and tested for significance to determine what is the current state of special education placement in Indiana Schools. The following questions represent the null hypothesis:

$H_0$1. There is no statistically significant difference based on special education placement among the ELA or Math standardized test performance.

$H_0$2. There is no statistically significant difference based on professional development hours among the ELA and Math standardized test performance.

$H_0$3. The years of experience for special education teachers does not explain a statistically significant amount of variance in the ELA or Math standardized test performance.

The first null hypothesis focused on whether there is a statistically significant difference on ELA and Math standardized test performance based on special education placement. An independent samples *t*-test was utilized to determine this inferential finding. This test was appropriate when testing the scores on the dependent variable (ILEARN scores) with the independent variable (location of instruction). The assumption of normality is met if there are no significant *p* values (> .05) using Levene's Test for Equality of Variances. The assumption of the homogeneity of variance was not violated since $p = .48$ (ELA) and $p = .32$ (Math) as both were greater than .05 on a Levene's Test of Equality of Variance.

The means of the type of placement score was not statistically significant for 2019 ILEARN ELA standardized tests for special education students instructed outside of the general education classroom ($M = .13$, $SD = .08$) or inside the general education classroom ($M = .14$, *SD*

= .09). There was not a significant difference between the standardized test scores in the area of ELA with, $t(138) = -.36$, $p = .72$, two-tailed.

The means of the type of placement score was not statistically significant for 2019 Math ILEARN standardized tests for students taught outside of the general education classroom ($M = .17$, $SD = .13$) or taught inside the general education classroom ($M = .18$, $SD = .13$). There was not a significant difference between the scores $t(138) = -.40$, $p = .69$, two-tailed. The null was retained and any difference among the means on ELA or Math ILEARN scores can be attributed to chance.

The second null hypothesis focused on whether there was a statistically significant difference on ELA and Math standardized tests when teachers were provided professional development on special education instructional best practices. An independent samples *t*-test was utilized to determine the inferential finding. This test was appropriate when testing the scores on the dependent variable (ILEARN scores) with the independent variable (hours of professional development) because the independent variable has two levels.

The assumption of two-tailed independent samples *t*-test were tested using a Shapiro Wilks and a Levene's Test of Equality of Variance to ensure the validity of the findings. The assumption of normality is met if there are no significant *p* values (> .05) using Levene's Test for Equality of Variances. The Levene's Test was non-significant $p = .39$ (ELA) and $p = .32$ (Math). Therefore, there was no violation of the assumption of homogeneity of variance and the assumption was met since the *p* value in both tests were greater than .05.

The question of professional development for teachers on special education best practices two hours or less or three hours or more for 2019 ILEARN ELA was compared. The means of the amount of professional development for special education best practices was not statistically

significant for 2019 ILEARN ELA standardized tests for teachers with two or less hours of professional development (M = .13, SD = .10) from the group with three hours or more of professional development (M = .14, SD = .08). There was not a significant difference between the scores, $t(139) = -.77$, $p = .45$, two-tailed.

The means of the amount of professional development for special education best practices was not statistically significant for 2019 ILEARN Math standardized tests for teachers with two or fewer hours of professional development (M = .18, SD = .14) from the group with three hours or more of professional development (M = .18, SD = .12). The null was retained, there was not a significant difference between the scores, $t(139) = -.30$, $p = .76$, two-tailed and any difference in the means can be attributed to chance.

The third null hypothesis focused on whether the years of experience for the special education teacher could explain a statistically significant amount of variance in either the ELA or Math standardized test scores. This null hypothesis was tested using a simple linear regression test as we are attempting to determine whether the variance in the ELA and Math scores (criterion variables) can be explained by the years of experience teaching special education (predictor variables).

The model summary statistics were examined to determine the relationship and explained variance within the model. The assumptions of a simple linear regression test was examined to determine the reliability of the findings. The assumption of independence of the residuals was met as the Durbin-Watson score for both ELA and Math were approximately 2.0. The assumption of linearity was met as the scatterplot for both dependent variables demonstrated a linear relationship with the years of experience predictor variable. The assumption of heteroscedasticity was met as no residual data point fell outside of plus or minus 1.5 standard

deviations. Finally, the normality of the residuals was met as the data points on the Normal P-Plot aligned to the diagonal line. The assumption of the simple linear regression tests used to answer this null hypothesis has been met. The relationship between years of experience and ELA scores was small with a correlation coefficient of .05. The coefficient of determination demonstrated that the years of experience only explained .2% of the variance in ELA scores. When adjusted for sample size, the amount of explained variance was non-existent. The standard error of the estimate was .09, which shows the average distance of each data point from the regression line. The years of experience did not explain a statistically significant amount of variance in the ELA scores. This was evident with an inferential finding of $F(1, 139) = .28$, $p = .60$. With the lack of significance, the coefficients output will not be interpreted.

The relationship between years of experience and Math scores was small with a correlation coefficient of .05. The coefficient of determination demonstrated that the years of experience only explained .2% of the variance in Math scores. When adjusted for sample size, the amount of explained variance was non-existent. The standard error of the estimate was .13, which shows the average distance of each data point from the regression line. The years of experience does not explain a statistically significant amount of variance in the Math scores. This was evident with an inferential finding of $F(1, 139) = .33$, $p = .57$. With the lack of significance, the coefficients output will not be interpreted. The null for years of experience explaining a statistically significant amount of variance in ELA and Math performance has been retained.

Summary

In the summer of 2022, elementary and middle level special education teachers across Indiana were surveyed. The 188 that responded noted the primary means of special education instruction in their buildings: 14 (7.4%) pull-out/separate room (100% of the day), 36 (19.1%)

Resource Room (40–60%) of the day, 27 (14.4%) co-teaching (general education and special education), and 110 (58.5%) Full-Inclusion (general education classroom 80% of the day). The data were analyzed with inferential statistics to determine if there was a relationship between location of special education students and standardized test scores.

The first null hypothesis stated that there was no statistically significant difference based on special education placement among ELA or Math standardized test performance. The second null stated there is no statistically significant difference based on professional development hours among the ELA or Math standardized test performance. The first two nulls were tested using a two-tailed independent samples *t*-test. The nulls were retained with a p value > .05. The third null stated that the years of experience for special education teachers did not explain a statistically significant amount of variance in the ELA or Math standardized test performance. The third null was tested with a simple linear regression. This null was also retained.

CHAPTER 5

SUMMARY OF FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

The last chapter of this study is structured into sections beginning with the summary of findings, implications, recommendations for future research, and a summary of the chapter. The summary of findings is an overview of the study. The implications section reviews the survey results in Chapter 4, an analysis of the data, and possible reasonings for the findings. The last section outlines possible further research based on this study and lastly a short summary of the findings.

The purpose of this study was to determine if there was a relationship between the LRE placement of special education students and their performance in English Language Arts and Math on standardized assessments. In addition, the study examined the amount of time special education and general education teachers received professional development on best practices with special education students and common planning time for co-teaching. The last portion of this study looked at the years of experience of special education teachers. A two-tailed *t*-test and a simple linear regression were utilized to answer research questions 2, 3, and 4.

1. What is the current state of special education placement among Indiana schools?
2. Is there a statistically significant difference based on special education placement among the ELA and Math standardized test performance?

3. Is there a statistically significant difference based on professional development hours among the ELA and Math standardized test performance?
4. Do the years of experience for special education teachers explain a statistically significant amount of variance in the ELA or Math standardized test performance?

Summary of Findings

Email addresses for all Indiana special education teachers were provided by the Indiana Department of Education. Emails were sent to each special education teacher requesting that they participate in this study. A total of 184 special education teachers completed the survey. The survey collected the following information on primary LRE placement of special education students currently in their buildings in 2022: 14 (7.4%) Pull-out, 36 (19.1%) Resource room, 27 (14.4%) Co-teaching, and 110 (58.5%) full inclusion. Teachers were asked to compare how LRE was different in 2014: 19 (10.1%) Pull-out, 61 (32.4%) Resource room, 23 (12.2%) Co-teaching, and 79 (42%) Full inclusion and 2014: 19 (10.1%) Pull-out, 61 (32.4%) resource room, 23 (12.2%) co-teaching, 79 (42%) full-inclusion general education classroom. Teachers were also surveyed on the amount of professional development they receive on special education instruction, and their years of experience teaching special education.

Inferential statistics data were used to determine if there was a significant difference on ELA and Math standardized test scores. Nulls 1 and 2 were tested using an independent sample *t*-test to determine if there was a significant difference in the dependent variable among two independent variables with two levels. Null 3 utilized a simple linear regression model to determine if the number of years of experience would predict ILEARN performance.

Results in Response to the Research Questions

Research Question 1

Research Question 1 explored, "What is the current state of special education placement in Indiana schools?" According to survey data teachers indicated in their buildings, 14 (7.4%) of special education students are placed in pull-out, separate classrooms 100% of the day, 36 (19.1%) are in a resource room 40–60% of the day, 27 (14.4%) are taught in the general education classroom with a co-teaching model, and 110 (58.5%) are in a full-inclusion general education classroom 80% or more of the school day. These numbers have changed since 2014, according to those surveyed. In 2014 special education students were primarily placed in the following LRE in their schools, 19 (10.1%) of special education students were placed in a pull-out separate classroom, 61 (32.4%) were in a resource room 40–60% of the day, 23 (12.2%) were taught in a general education classroom with a co-teaching model, and 79 (42%) were in a full-inclusion general education classroom 80% or more of the day. There has been an increase in the placement of special education students in the general education setting +35 (+18.7%) and a decrease in the amount of time special education students are pulled out of the general education classroom for instruction and supports -30 (-16%).

Research Question 2

Research Question 2 explored, "Is there a statistically significant difference based on special education placement among the ELA and Math standardized test performance?" The results were not significantly different for ELA, $t(139) = -.36$, $p = .72$, two-tailed or for Math, $t(139) = -.40$, $p = .69$, two-tailed. The ELA and Math standardized test scores cannot be predicted based on the LRE placement of special education students.

Survey responses indicated that there was a -25 (18%) decrease in students placed in resource rooms (40–60% of the day) and a +31 (16.5%) increase in students in the full inclusion general education setting (80% + of the day). According to survey respondents, 71 (37.8%) responded that they had a good amount of input in the LRE placement and 66 (35.1%) responded that they made the recommendation for the LRE placement of their students. Based on the placement of students, respondents replied that 120 (63.8%) believed that students in these LRE placements were somewhat prepared for grade level mastery of standards and 48 (25.5%) responded that students were well prepared for grade level mastery of standards.

When asked, "In general education classrooms, who primarily works with special education students?" 92 (48.9%) of those surveyed, responded that the general education teacher does, 50 (26.6%) responded that the special education paraprofessional does, and 40 (21.3%) responded that a special education teacher primarily works with the students. Once special education students are moved into a general education placement, almost 75% of the students no longer have highly qualified licensed special education personnel working with them.

In the co-teaching model, 40 (21.3%) responded that 75% of the lesson is taught by the general education teacher, 27 (14.4%) 50–74% is taught by the general education teacher, and 16 (8.5%) responded that less than 50% is taught by the general education teacher. The other 105 (55.9%) do not utilize co-teaching practices.

Out of the 42% that responded to the question, 45 (23.9%) responded that they have no planning time with the general education teacher, 19 (10.1%) are provided with one hour per week, 7 (3.7%) have 2 hours, 5 (2.7%) have 3 hours, and 3 (1.6%) are given 4 or more hours of planning time each week. Of the schools that utilize co-teaching, 109 (58%) responded that they receive no professional development on co-teaching methods, 24 (12.8%) responded with 1–2

hours, 12 (6.4%) were provided 3–5 hours, and 1 (.5%) responded that they were given 11+ hours of professional development on co-teaching.

Research Question 3

Research Question 3 explored, "Is there a statistically significant difference based on professional development hours among the ELA and Math standardized test performance?" The results were not significantly different for ELA, $t(139) = -.77$, $p = .45$, two-tailed or for Math, $t(139) = -.30$, $p = .76$, two-tailed. The ELA and Math standardized test scores cannot be predicted based on the amount of professional development special education teachers are provided.

On the topic of professional development, 86 (45.7%) of survey respondents stated that special education teachers received 2 or fewer hours of professional development on best practices with special education students each year. Those teachers that responded with 2 hours or fewer of professional development, 7 (8.1%) responded that there was a decrease in the scores of special education students, 33 (38.4%) noted no change in scores, and 17 (19.8%) saw an increase in the students' scores. There were 102 (54.2%) survey respondents that indicated they had received 3 or more hours of professional development. Those respondents indicated that 11 (10.8%) observed a decrease in special education student scores, 40 (39.2%) saw no change in scores, and 24 (23.5%) saw an increase in their students' scores.

Research Question 4

Research Question 4 explored, "Do the years of experience for special education teachers explain a statistically significant amount of variance in the ELA or Math standardized test performance?" The results were not significantly different for ELA, $F(1, 139) = .28$, $p = .60$ or for Math, $F(1, 139) = .33$, $p = .57$. The ELA and Math standardized test scores cannot be

predicted based on the years of experience of the special education teacher in a special education classroom. Based on survey responses, the largest portion of special education teachers were within 0–10 years in special education making up 52% of the special education teachers that responded. The average years of experience for all respondents was (M = 12.84, SD = 10.24). The percentage of respondents with more than 10 years drastically decreased after the 6–10 age group. The relationship between years of experience and test scores was small with a correlation coefficient of .05. The coefficient of determination demonstrated that the years of experience only explained .2% variance in years of experience and ELA and Math scores.

Implications

The nulls were retained and no significance was found in the inferential statistics. Although there was no significance found, the data can lead to implications related to the study. The descriptive statistics from Research Question 1 did provide insight to some implications as is stated below.

Placement of Students

According to those surveyed, the trend of special education student placement has shifted from 80 (42.5%) pull out and resource room in 2014 to 50 (26.5%) in 2022. Of the teachers that indicated there had been a change in the LRE placement of students since 2014, 91 (48.4%) responded that there had been either a decrease in the scores of special education students, or no change in scores. Only 41 (21.8%) indicated that there had been an increase in standardized scores.

When comparing special education teachers of students who are primarily taught outside of the general education classroom, 45 (70%) stated that they either have a good amount of input or make the recommendation for the placement of their special education students. Of the

teachers who responded that their students were primarily taught inside a general education classroom, 101 (73.8%) responded that they have a good amount of input or make the decision where students will be placed.

One element of this research study focused on co-teaching. A total of 50 (26.5%) of the survey respondents stated that their schools utilize some form of co-teaching, but when I dug deeper it was evident that only 6 (12%) of respondents shared the instructional time 50/50 with a general education teacher. One of the draws for utilizing a co-teaching model was so that a special education teacher, highly qualified in a specific content, could teach, re-teach, and re-phrase a lesson so that multiple ways of instruction and perspectives could be provided. Not only could this form of teaching be beneficial to special education students, but also to other students in the classroom who may be struggling to grasp certain concepts taught by a general education teacher. As mentioned in chapter two, the study by Teigland (2009) concluded that students in a co-teaching environment saw gains in ELA and math at the middle school level. Without the luxury of co-planning time, it is difficult for both teachers to identify areas of strength for instruction and finding areas that they agree they need to allocate additional time and instruction for struggling students. I would encourage schools that are mainstreaming large percentages of their special education student population to take a closer look at the co-teaching model and give special education teachers more input and instructional opportunities in the general classroom setting. It could also be beneficial for schools to ensure that general and special education teachers are provided a common planning period to allow them time to collaborate at least once a week on upcoming lessons. This would also allow for the special education teacher to discuss what they have been working on outside of class and methods that have been working to help students master content.

A major hurdle to schools in implementing a full-fledged co-teaching model is finances. Since two staff are in classrooms with students, in multiple core areas, it does require a change in focus for special education departments. This change would require school districts to be creative in their staffing models. Some schools reduce the number of class periods special education teachers are in the Resource Room to allow them to push into co-teaching classrooms. It would also be beneficial to allocate additional special education funding to help provide resources and supports to better meet the overall needs of special education students.

The other finding from this research revolved around schools that utilized co-teaching but provided little to no professional development on how to implement the teaching practice. The respondents indicated that 31 (62%) received zero hours of professional development. Only 5 (10%) responded that they had 1–5 hours of professional development. For co-teaching to be successful, more professional development time needs to be given to staff on best practices. Additional professional development could help create clear guidelines for how co-teaching should operate and would also bridge the gap between the general and special education teachers so that they would both better understand their roles, could best work together, and not feel threatened having another teacher in the classroom. Both teachers, the special education and general education teacher, must also put aside their beliefs on how a classroom should look and run to allow for a change in mindset and format of instruction.

Professional Development

Survey results indicated that 86 (45.7%) of teachers that responded received 0–2 hours of professional development on best practices with special education students. The other 102 (54.3%) indicated that they received between 3–11 hours of professional development. Of the teachers who received professional development, 158 (84%) indicated that the professional

development on best practices was beneficial to the teacher. When comparing the benefit of professional development for special education based on the primary placement of students, 116 (84.7%) teachers who had students primarily in the general education setting found the professional development to be beneficial compared to only 41 (82%) of teachers that had students primarily in pull out and resource settings. When comparing the benefit of professional development, 61 (71%) of those teachers that received two or fewer hours of professional development viewed the professional development as beneficial as compared to 97 (95.1%) of those who received three or more hours of professional development. The results of these data suggest that teachers see the value of quality ongoing professional development.

Regardless of the amount of professional development that was provided to staff, those surveyed were still similar in the amount of time that general education and special education teachers spent in front of students in a general education classroom. Of those teachers who had two hours or fewer of professional development, the general education teacher primarily worked with special education students 46.5% of the time. In the scenario of three hours or more, the general education teacher was the primary instructor 51% of the time.

It is assumed that the more professional development general education teachers received on best practices, the more time they would allow for special education teachers to share the instructional time, but the data did not support that belief. Of those that responded with two or fewer hours of professional development, 23 (26.8%) responded that the general education teacher taught 50% or more of the time. The teachers that received three or more hours of professional development, 44 (43.1%) responded that the general education teacher taught the lesson 50% or more of the time. It is possible that the professional development that was provided was not directly related to best practices in co-teaching methods. Young (2018) stressed

the importance of providing general education and special education teachers with professional development to help them best respond to student issues in the classroom.

Years of Experience

Respondents were asked how many years of teaching experience they had teaching special education in Indiana including this year. Teachers were chunked into groups with 56 (29.7%) responded with 0–5 years, 42 (22.3%) responded with 6–10 years, 27 (14.4%) responded with 11–15 years, 21 (11.1%) responded with 16–20 years, 17 (9%) responded with 21–25 years, 12 (6.3%) responded with 26–30 years, five (2.7%) responded with 31–35 years, and eight (4.3%) responded with 36–41 years (M = 12.84, SD = 10.24). The survey respondents indicated that 98 (52%) of them had been teaching special education for 10 years orfewer. According to the linear regression, there was not a significant difference in standardized test scores based on years of experience. The results of that test were surprising because as Graham et al. (2020) noted, many people assume there is a direct correlation between years of experience and mastery of standards for teachers working with students.

Recommendations for Further Research

This study focused on special education teachers in the State of Indiana. The sample size was small regarding the area of co-teaching. It would be beneficial to expand this study to include multiple states or regions of the United States to determine if with a larger sample size there are any correlations between co-teaching practices and standardized test scores. In a co-teaching classroom, it could also be beneficial to get the perspective of students to learn what form of instruction they believe is the most beneficial to their learning, whether from a special education or general education teacher.

One question that was not researched concerning years of experience was whether a teacher was under an emergency license. There has been a push back by the legislature in Indiana on the issuing of emergency permits. It would be interesting to see if there is measurable negative impact on student learning based on emergency licensing of special education teachers..

A similar survey could be considered for school administrators on the same issues researched in this study. The survey could ask what the primary LRE placements are in their schools, whether co-teaching is utilized and if so what kind of profession development is tied to the practice, and what the average years of experience of their school's special education staff and what the underlying reasons are that influence special education teachers to leave the classroom. It could be beneficial to gain a perspective from an administrator to see if there are other influencing factors leading to current trends and lack of professional development opportunities for special education and general education teachers on best practices with special education students.

The issue of LRE could also be examined from a social emotional standpoint. How does the location of instruction impact the social and emotional wellbeing of special education students and general education students? In much of my research, the mainstreaming of special education students continues to be a divisive issue, especially when behavior is a primary concern. Behaviors can impact the learning environment for other students in the classroom and take away instructional time from a classroom teacher. It would be interesting to see if student outburst or disruptive behaviors are reduced when a special education teacher is present in the classroom and if there are positive academic impacts.

Another demographic question that could be added to this study would be school size and socioeconomic makeup of the school district. This information would be helpful to identify if

schools with higher socioeconomics are able to offer additional co-teaching opportunities and professional development for their staff and if socioeconomic status has any direct correlation to academic achievement on standardized assessments.

Along the lines of training, it would be beneficial to know the amount of undergraduate college coursework each teacher received on special education students and instruction. This is an area that could benefit educators of all content areas before entering the classroom. Alongside university coursework, identifying if additional practicum, and student teaching hours with special education students would build empathy and a greater understanding of how this population of students learn to assist in the instruction and retention of material being taught in the classroom.

Another avenue of research could be a qualitative study of several schools utilizing the co-teaching model to obtain input from multiple perspectives on how well students are performing on daily tasks, not just standardized assessments. It would also be beneficial to find out which schools that use co-teaching utilize professional development to provide clear guidelines on the practices and what has been the best support for staff and students. This quantitative study provided limited information on how co-teaching was being utilized in the classroom. It would be helpful to see first-hand the variations of co-teaching methods that schools have implemented to better understand best practices. A qualitative study would also allow for clarifying questions concerning how teachers view the sharing of instructional time and could also allow for student input on their perspectives of the co-teaching model. The researcher could also observe the professional development that is provided to compare the methodology between various school districts. These data could then be utilized to provide clear guidelines for professional development to help other schools that are considering a co-teaching model and

want to be as effective and efficient as possible. The qualitative study would also allow the researcher to apply the evidence back to specific school data to identify academic correlations between practices and standards mastery.

Summary

Chapter 5 included an introduction and a summary of the research findings in chapter 4. Implications were then discussed identifying possible causes for the results from the research that was done. Recommendations were made based on the years of experience of teachers, placements of special education students, and professional development that is provided to teachers. Lastly, recommendations were made for future research around special education placement.

This quantitative study examined possible factors that impact special education students' academic mastery. The data identified several areas that need to be studied closely. It is important that educators work to find ways to retain special education teachers to increase the number of years that they stay in the field. Based on the results of this study, over 50% of special education teachers have been in the classroom 10 years or fewer. After 10 years of teaching, the number of teachers in special education classrooms drastically declines.

There continues to be a movement of special education students away from pull-out resource and self-contained special education classrooms to mainstreaming of special education students in the general education classroom setting. The education community and IEP case conference committees must ensure that placement decisions of special education students in LRE are made based on what is best for students and not allow politics and funding to dictate the decision-making process. When the decision is made to place students in general education classrooms, there are best practices for supporting those students. One strategy is a co-teaching

environment where a general education and special education teacher share teaching and coaching responsibilities. This method of instruction will only be effective with proper training for both teachers and opportunities provided to collaborate and support each other in the instruction of students.

Last, professional development on best practices for instruction and behavior management of special education students needs to be a priority for all staff to help them better understand and implement ongoing methods and strategies that best meet the needs of special education students. This is especially important when students are placed in general education classrooms with only a classroom teacher or a special education aide. Those instructional personnel need the training and support to enable them to provide necessary services to students with special needs along with continuing to provide a high quality educational experience to the other students in the classroom.

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APPENDIX A: SURVEY FOR SPECIAL EDUCATION TEACHERS

Research Survey Questions:

Do you consent to participate in this survey?

a. ___ I consent

b. ___ I do not consent

1) Are you a current elementary or middle school special education teacher in the state of Indiana?

a. ___ Yes

b. ___ No

2) How many years have you been teaching special education in Indiana, including this school year?

a) ___

3) What is the current PRIMARY means of Least Restrictive Environment (LRE) placement for special education students in your building? (Select one)

a) ___ Pull-out/Separate room (100% of the day)

b) ___ Resource Room (40–60% of the day)

c) ___ Co-Teaching model (general education and special education teacher)

d) ___ Full-Inclusion (general education classroom 80% or more of the day with aides and special education assistance)

4) In 2014, what was the PRIMARY means of LRE placement for special education students in your building?

a) ___ Pull-out/Separate room (80+% of the day)

b) ___ Resource Room (40–60% of the day)

c) ___ Co-Teaching model (general education and special education teacher)

d) ___ Full-Inclusion (general education classroom 80% or more of the day with aides and special education assistance)

5) If your school changed the primary LRE placement of special education students since 2014, has there been any educational impact on student academic outcomes?

a) ___ Decreased in scores of special education students on standardized tests.

b) ___ No change in scores of special education students on standardized tests.

c) ___ Increase in scores of special education students on standardized tests.

6) How much input do you have on the LRE placement of students?

a) ___ No input at all

b) ___ Some input

c) ___ A good amount of input

d) ___ I make the placement recommendation

7) How much professional development time do you receive on best practice with special education students each school year?

1) ___ 0 hours

2) ___ 1–2 hours

3) ___ 3–5 hours

4) ___ 6–10 hours

5) ___ 11+ hours

8) How beneficial was the professional development on best practices with special education students to you?

a) ___ N/A

b) ___ Not at all beneficial

c) ___ Somewhat beneficial

d) ___ Beneficial

e) ___ Extremely beneficial

9) Based on the primary LRE placement of students in the current school year, how well does this instructional placement prepare students with special needs for grade level mastery of standards?

a) ___ Not at all prepared

b) ___ Somewhat prepared

c) ___ Well prepared

d) ___ Extremely well prepared

10) In general education classrooms, who primarily works with the special education students?

a) ___ The general education teacher

b) ___ A licensed special education teacher

c) ___ A special education paraprofessional

d) ___ none of the above

11) If your school utilizes the co-teaching model, how much of the lesson is taught by the general education teacher?

a) ___ N/A

b) ___ 0%

c) ___ 1–24%

d) ___ 25–49%

e) ___ 50–74%

f) ___ 75%+

12) If you participate in co-teaching at your school building, how much planning time is allowed in the school week with the general education teacher?

a) ___ N/A

b) ___ No planning

c) ___ 1 hour

d) ___ 2 hours

e) ___ 3 hours

f) ___ 4+ hours

13) If your school utilizes co-teaching between general and special education teachers, how much time is provided for professional development on co-teaching methods?

1) ___ 0 hours

2) ___ 1–2 hours

3) ___ 3–5 hours

4) ___ 6–10 hours

5) ___ 11+ hours

14) In order to cross reference responses with testing data, please provide your school and corporation name.

APPENDIX B: EMAIL ADDRESS REQUEST TO IDOE

To Whom It May Concern:

I am a doctoral student at Indiana State University completing a dissertation in Educational Administration. I am writing to ask for written permission to access elementary and middle school special education teacher email addresses in the State of Indiana to send out survey questions for my thesis on The Impact of Least Restrictive Environment (LRE) on Special Education Students' Academic Growth in the State of Indiana. Teachers will be surveyed about the primary location and means of instruction of special education students in their building, how much professional development they are provided each year, and about their years of teaching experience in special Education. The responses to this survey will be compared to specific ILEARN building results to identify any correlating factors for student academic growth. My research is being supervised by my professor, Dr. Terry McDaniel. An IRB approved survey will be sent out to every fifth school district on the ILEARN assessment report. The provided email addresses will be utilized only for my research and will not be sold or shared with anyone else. If you are willing to provide email addresses, please reply to this email at along36@sycamores.indstate.edu.

Sincerely,

Adam D. Long

APPENDIX C: SURVEY INVITATION EMAIL TO TEACHERS

Dear Prospective Survey Respondent,

I am a doctoral student at Indiana State University. I am conducting a survey as a part of my study on The Impact of Least Restrictive Environment (LRE) on Special Education Students' Academic Growth in the State of Indiana. The IRB Review Board has approved this survey.

You are being invited to participate in a research study. This study aims to find out the effectiveness of various placement practices, professional development, and teaching experience on elementary and middle level special education students' academic performance. The results of this study will help guide future leaders in best practices for special education student placement and professional development. This document will help you decide if you want to participate in this research by providing you information about the study and what you are asked to do. You will be asked to answer a few questions on student placement, professional development, and experience in special education.

Some reasons you might want to participate in this research are to help educators better understand best practices for teaching students with special needs. One reason you might not want to participate in this research is no experience working with special education students or limited knowledge of special education practices.

This study asks you to answer a few questions on the primary placement of special education students in your building, the amount of professional development offered to special education teachers, and your years of experience in a special education classroom**.** You have been asked to participate in this research because you have been identified as a teacher of special education students in the state of Indiana.

The choice to participate or not is yours; participation is entirely voluntary. You can decline to respond to any or all the survey questions or withdraw at any time. If you decide not to participate, to decline some activities, or withdraw, you will not lose any benefits which you may otherwise be entitled to receive.

Every effort will be made to protect your confidentiality by maintaining secure access to survey responses. Part of this study asks for your school number to compare responses with correlating testing data. This does create an increased risk to confidentiality. Additional steps will be taken to protect respondents. When the data is downloaded from Qualtrics the school name will be eliminated simultaneously with the ILEARN data. This information will also be encrypted, and password protected. Specific survey responses will not be shared with any individuals or organizations outside of the study.

There are some potential risks to this study. These include loss of time spent completing the survey and the possibility that there could be a data breach of information. Every precaution has been taken to reduce the risk, but there is still the time spent responding to the survey questions and unforeseen circumstances that could result in a leak of data.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit the State of Indiana and other states that utilize this information to help guide decision making practices to better educate students and support special education teachers in the future.

If you have further questions or concerns, please contact me at (765) 438-8736 or my dissertation chair, Dr. Terry McDaniel at terry.mcdaniel@indstate.edu. The Indiana State University IRB contact is at irb@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

By agreeing to participate in this survey, you are giving the researcher permission to use your responses in his data analysis. Your participation in this survey is completely voluntary and all responses will be kept confidential. You may also stop at any time in the survey and responses will not be recorded. If you wish to view the results of this research, you may request a copy of the findings of this study in writing at Adam D. Long P.O. Box 98 Greentown, IN 46936-0098.

The survey is short and should take less than 10 minutes to complete. There will be no compensation for your participation in this study.

If you would like more information on this study, an information letter can be requested at along36@sycamores.indstate.edu. If you agree to participate in this study and proceed with this survey, please click on the link below.

https://indstate.qualtrics.com/jfe/form/SV_0fjZbkmvA9bIMf4

Thank you for your consideration,

Adam D. Long