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FINDING YOUR PLACE IN THIS WORLD: A QUANTITATIVE STUDY EXPLORING THE GEO-LITERACY SKILLS AND CONTENT KNOWLEDGE TAUGHT TO STUDENTS WITH DISABILITIES EDUCATED IN SEGREGATED SPECIAL EDUCATION CLASSROOMS

By
Pamela Brillante

A Dissertation

Submitted to the
Department of Educational Leadership
College of Education
In partial fulfillment of the requirement
For the degree of
Doctor of Education
At
Rowan University
October 3, 2014

Dissertation Chair: Katrinka Somdahl-Sands, Ph.D.

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Dedication

This project is dedicated to my parents, family, classmates, colleagues and friends who have encouraged me and had to listen to me talk about this degree incessantly for the past three years. This was not easy, but with your help I have learned that even the most intimidating task can be accomplished one step at a time.

A special dedication needs to go out to the late Drs. Leola Hayes and Arthur Shapiro, who taught me how to be a special education teacher so very long ago. Although neither of you had the opportunity to see me now, you are the ones who started this fire. I hope I can inspire future teachers like you inspired me. It was an honor and privilege to learn from both of you.

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They say it takes a village to raise a child, but I would add that it takes a village to write a dissertation.

First and foremost, I need to express my deepest gratitude to my chair, Dr. Katrinka Somdahl-Sands. I have truly enjoyed learning from you and reigniting my love of everything social studies and geography. I am eternally grateful for your patience, vast knowledge of geography, and the freedom to take my study where I needed it to go. I may be the first person to ever have you as a dissertation chair, but I hope I am not the last. Thank you for everything.

Dr. Ane Johnson, you are hands down the smartest professor I have ever had the privilege of learning from. I only hope that someday I am half the professor you are. Thank you for being a cheerleader in my corner, and for all of the encouragement during our classes and during this dissertation. Rowan University is damn lucky to have you.

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footsteps the best I can and pay it forward to the next generation.

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And finally, when it comes right down to it, maybe the most important person of them all has been YiFu Tuan, the geographer who made this odd pairing of geography and special education make sense. You were the light in my dark room. Some have mocked my utter devotion to you, but without you I would still be banging my head against the wall writing Chapter 1. I look forward to reading your books again, this time for pleasure.

Abstract

Pamela Brillante
**FINDING YOUR PLACE IN THIS WORLD:
A QUANTITATIVE STUDY EXPLORING THE GEO-LITERACY SKILLS AND CONTENT KNOWLEDGE TAUGHT TO STUDENTS WITH DISABILITIES EDUCATED IN SEGREGATED SPECIAL EDUCATION CLASSROOMS**
2014/15
Katrinka Somdahl-Sands, PhD.
Doctorate of Education in Educational Leadership

This study was designed to investigate if there was (a) a statistically significant relationship between the different classroom placements special education students were educated in, and instruction in the core subject area of geography and (b) gather the reported beliefs of special education teachers who are teaching in segregated classrooms, about the importance of geographic skills and content knowledge in order for students with disabilities to be able to self-advocate in the future.

The results of this study identified that there were statistically significant relationships found across all of the standards highlighting the difference of where a student was educated and their access to the same amount of geography related books and materials as their typically developing peers. It was reported by the teachers that students educated outside of schools where typical peers were present had far less access to these material than their typical peers as compared to students in segregated classrooms in schools with typically developing peers were present.

There were also statistically significant relationships found across all of the standards as teachers reported that students educated in schools without typically

developing peers made far less progress made towards geography standards as compared to their typical peers as did students educated in segregated classrooms in schools with typically developing peers were present.

In the area of participation in activities and instruction in geography topics, most of the standards did not show a statistical significance between placements in schools with typical peers and without, but most instances that data showed that none of the students educated outside of the general education classroom were participating in instruction in geography topics.

Additionally, special education teachers teaching in segregated settings reported that they did not feel that the majority of the geography skills and knowledge presented in the survey were very important or essential for students with disabilities to know in order to be able to self-advocate and live as independently as possible in the future.

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Chapter 1

Introduction

"Knowledge of a place--where you are and where you come from--is intertwined with knowledge of who you are" (Orr, 1992, p.130).

Geography skills and content knowledge are the building blocks of the foundation all people need in order to be active participants in the world in which we share. Educators have a responsibility to facilitate geographic learning so that students are prepared to function independently in society. Effective geographic skills and content knowledge are much more complex than simply possessing the ability identify places on a map. According to National Geographic (n.d.), this geographic perspective helps us to understand "the why of where" and helps us to answer questions such as, "why do places and people develop and change over time" (National Geographic, n.d., p.2).

The National Geographic Society defines geo-literacy as the need for three types of skills and content knowledge: how the world works, how our worlds are connected and how to make well-reasoned decisions (n.d.). Making well-reasoned decisions requires students to understand the interactions between humans and the physical world, the way people and places are interconnected across time and space, and the implications of the potential impacts of these decisions (Edelson, 2011).

To be geo-literate is to have the ability to analyze all we know about the interconnectedness of Earth systems in order to make both far-reaching decisions that impact the world we share, as well as to make good decisions about our life. According to Edelson (2011), geo-literacy provides communities with the tools needed to enable citizens to protect both natural and cultural resources, to reduce violent conflicts, and to

improve the quality of life worldwide.

As a subject matter, geography provides us with the common language necessary to have a voice in the global society's important conversations about our changing world (National Geographic, n.d.). From that viewpoint, geography skills and content knowledge are fundamental for all people, particularly those from marginalized groups that are likely to be unduly excluded from those conversations. To have access to geography education and, therefore, this common language is essential for all young people, and perhaps most of all, for the educationally marginalized group of students with disabilities.

Core academic subjects like geography are essential in helping teachers to teach self-determination skills, because they present a world of facts and experiences that reach beyond familiar daily experiences. It is sound pedagogy to begin instruction for students with significant disabilities within their everyday experiences, but a curriculum that focuses only on those experiences will inevitably prove to be a disservice to those students, and to society in general (Weeden & Lambert, 2010). Within this framework, geo-literacy provides the foundational tools that individuals with disabilities need in order to make reasoned decisions regarding what they want for their own lives.

Geography for Life

The Geography for Life: National Geography Standards 2nd Edition was released in 2012 adding three major components of to the existing sixteen standards, adding: geographic perspective, geographic knowledge, and geographic skills (Heffron & Downs, 2012). The goal of *The Geography for Life: National Geography Standards* is to prepare all students to become geo-literate through the development of the skills and mastery of

three things: factual knowledge; ways of thinking; and finally using mental maps and tools (Heffron & Downs, 2012). While a comprehensive look at the history and evolution of *The Geography for Life: National Geography Standards* is presented in Chapter 2, the overall structure of the complete eighteen standards are organized under six essential elements and displayed in Table 1.

Table 1

Geography for Life: National Geography Standards Organization

Geography Essential Elements	National Geography Standards
World in Spatial Terms	Standards 1, 2, 3
Places and Regions	Standards 4, 5, 6
Physical Systems	Standards 7, 8
Human Systems	Standards 9, 10, 11, 12, 13
Environment and Society	Standards 14, 15,16
Uses of Geography	Standards 17, 18

The second edition further defines the skills and knowledge benchmarks for three different grade bands: up to and including 4th grade; up to and including 8th grade; up to and including 12th grade (Heffron & Downs, 2012).

The Importance of a Humanistic Approach to Geography

The discipline of geography consists of two main sub-fields: physical geography and human geography. While physical geography is the study of the natural environment, human geography is the study of the relationship between humans and our natural environment (National Geographic, n.d.). Humanistic geography takes a sociological approach towards human geography that is sometimes characterized by the active role the environment plays in shaping our understanding of the meaning, value and human significance of life events (Buttimer, 1980). Studying humanistic geography helps us to develop a deeper understanding of our physical and emotional role within our environment.

Tuan's (1997) research explores how very personal our sense of geography can be by explaining that people have a tendency to experience and interpret the world from an egocentric point of view. In his book *Space and Place,* Tuan (1977) writes that "place is security, space is freedom; we are attached to the one and long for the other" (p. 3). This emphasizes the philosophy that as humans we require both sanctuary and sovereignty. This sense of safety and autonomy is an essential aspect in shaping one's own identity.

A Sense of Place

Humanistic geography relies on the foundation that all people must develop a sense of place in order to understand their own status in this world (Cresswell, 2004). Generally, the concept of space is understood as a specific location, an objective point on the earth's surface easily identifiable by the use of coordinates (Cresswell, 2013). Space permits us to use directions and to quantify distances between locations and points. In this definition, space can be both observable and measurable.

Place, however, is differs from location, place is a term used by humanistic geographers to describe our attachment of meaning to distinctive locations (Cresswell, 2013). In essence, places are not necessarily fixed locations; and, according to this tenet, a ship, for example, can be a place despite its travelling through multiple locations (spaces) over the course of time. To put succinctly, our address marks our location, but place is our home (Vergeront, 2013). We mark events in the timeline of our lives according to place and it, therefore, becomes a part of our identity. To have an understanding one's place in the world suggests that we create a familiar, even intimate relationship with our experiences with the places where those experiences originate, and that relationship that helps us to feel included within society. According to Relph (1976):

To have roots in a place is to have a secure point from which to look out on the world, a firm grasp of one's own position in the order of things, and a significant spiritual and psychological attachment to somewhere in particular. (p. 38)

A Child's Developing Sense of Place

According to psychologist Jean Piaget, children acquire a sense of place during the early representational thought stage, which generally occurs between 18-24 months of age (Gandy, 2007). Observation of this stage has helped us to understand how young children construct and acquire knowledge from their experiences of interacting with their environment. Equipped with curiosity and with the use of their five senses, children explore and manipulate materials in their environment, and they subsequently develop an understanding of how to interact with their environment (Gandy, 2007). Tuan (1977) also writes that"

> Things are not quite real until they acquire names and can be classified in some way. Curiosity about places is part of a general curiosity about things, part of the need to label experiences so they have a greater degree of permanence and fit into some contextual scheme. (p. 29)

Therefore, our sense of place is reliant on both the experiences we have had and the thoroughness of our education. According to Tuan (1977), "feeling for place is influenced by knowledge." (p. 32) and "space is transformed into place as it acquires definition and meaning" (p. 136). This need for geographic knowledge and experiences are the foundation for understanding our sense of place. It is through these experiences of actively exploring spaces and manipulating objects within the environment that help children to develop cognitive skills and begin to understand the world around them

(Proshansky & Gottlieb, 1989).

From a constructivist perspective, active participation emphasizes the ways in which knowledge is created in order to adapt to and make sense of the world around us (Bruner, 1961). The philosophy of constructivism has long been component of educational practices. Student engagement through the use of hands-on experiences, project-based activities, and collaborative practices in the classroom are all examples of teaching and learning based on constructivist principals (Rogers, Lyon & Tausch, 2013). These methods of exploration, thinking, reflection and interaction with the environment help us to understand our sense of place, while they also become a part of the tools geo-literate individuals need in the attainment of independence and autonomy

Teacher as Place-Maker

For very young children, physical environment can play a role in development and attachment. David & Weinstein (1987) discuss the key role environment plays in infant development and they identify the environment as the infant's primary medium for learning. Further, they suggest that the attachments made to favorite places and objects from infancy are important factors in the emotional development of young children. Prescott (1987) also identified that favorite childhood places provide memories that continue to be significant throughout adult life.

The idea that the physical environment plays an important role in influencing early childhood education is not a new one. Classroom environments are integral to a child's development of a sense of place. Based on their research, Kritchevsky & Prescott (1969) observed that when classroom space is poorly organized, children look towards the teacher for guidance and instruction and the teacher's role then becomes directive. As

a result, teachers spend a significant amount of time directing and addressing the needs of the whole group, which inevitably leaves less time to assist individual children. Wilson (1997) identifies that the physical environments surrounding children "communicate important messages to them about who they are and what they may aspire to be" (p.191).

Environments that are truly accessible to all children will reflect the idea that children are valued and that their differing abilities or models of learning are understood and respected. According to Lackney and Jacobs (2002), a relationship exists between classroom instruction and classroom setting; the two are separate components that work together to ensure a productive learning experience.

The function of the physical environment in classrooms designed for older students is often overlooked, but it is one of the fundamental elements in the overall design of instruction which influences both the learning objectives and teaching methods. The use and allocation of space in the classroom directly impacts the behavior and attitudes demonstrated by both children and teachers (Gump, 1987; McGuffey, 1982; Weinstein, 1979); the physical arrangement of classroom furniture and materials influences the classroom atmosphere; the classroom tone either positively or negatively impacts a teacher's ability to teach and a student's ability to learn (Lackney,1996).

Teachers must be prepared to become what Schneekloth & Shibley (1995) have termed *place-makers* in the classroom by understanding how the geography of the classroom and the arrangement of the classroom furnishings help to either support or hinder their instructional objectives. The purposeful use of environmental design helps students to develop an understanding of the space and the place they share with peers and adults (Schneekloth & Shibley, 1995). This first-hand experience with intentional use of

space will be the foundation that children will rely upon while they develop the geo-literacy skills that will enable them to solve problems and make choices as they interact with their own environments and the world around them as they grow and develop. These are critical skills and content knowledge all students need to acquire for a successful future, including students from marginalized groups because according to Edelson (2011), "whether they realize it or not, every member of our modern society makes far-reaching decisions every day" (p.1).

Students with Disabilities: Finding Their Place

Deliberate focus on the importance of developing geo-literacy skills and content knowledge is an essential part of the ongoing conversation surrounding the education of students with disabilities. Students learn what is expected of them by exploring and manipulating the materials in their environment during early childhood, as well as through their social interactions with peers and adults. Young children with disabilities are aware of these expectations and attach great importance to the way they are treated, and as a result, teacher expectations of students with disabilities have a significant impact on their educational experience (Wilson, 1997). If these collective expectations are primarily based on factors related to the child's disability, these expectations will also impact the way a child develops a sense of self (Proshansky & Gottlieb, 1989).

For many years, society had low expectations for students with disabilities, and learning was primarily focused on achieving isolated skills found in each student's Individualized Education Program (IEP) (Taormina-Weiss, 2012). This educational practice made the IEP the de facto curriculum for each student, disregarding the general education curriculum taught to typically developing students. *The Individuals with*

Disabilities Education Act Amendments of 1997 (*IDEA 97*) mandated the alignment of the IEP with the general education curriculum and standards. This new way of thinking about the provisions of special education deliberately focused on students with disabilities access to, participation in, and progress made towards the general education standards (IRIS Center for Training Enhancements, 2004).

Ongoing revisions to the *Individuals with Disabilities Education Act in 2001* have focused on meeting the unique needs of students with identified disabilities in order to prepare them to be active members of society by equipping them with the tools to further their education, to secure employment and to live as independent adults. In the Act (2001), Congress wrote:

> Disability is a natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society. Improving educational results for children with disabilities is an essential element of our national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency. (p.117)

Historically, public policies that addressed the needs of individuals with disabilities were often shaped by stereotypes of dependency on society (Scotch, 1984). Today, just like 50 years ago, certain pre-conceived beliefs about intelligence and learning have led teachers to develop significantly lower expectations for low-achieving students, particularly those with cognitive disabilities (Cotton, 2001; Lee, 1996).

Despite legislation that sought to improve both education equality and physical accessibility to classrooms for individuals with disabilities, discrimination and misconceptions continue to exist. While the number of students with disabilities who are

included into general education classrooms is increasing, there continue to be students with disabilities who are educated in separate special education classrooms within public schools and in 'special' schools that educate only students with disabilities.

Concerns regarding both access to general education curriculum and quality of education found in separate special education classrooms and schools are noteworthy. According to Shapiro (1999), students with disabilities who are educated in separate special education settings will not learn how to function in a non-disabled world. Shapiro continues to argue that separate special education classrooms and programs do not provide students with disabilities with the opportunities to develop the skills, attitudes and values necessary to get along with others and to become interdependent members of society (1999). Other critics of separate special education schools argue that, "special schools educate disabled people into a lifetime of dependence/marginalization, by not providing disabled people with the skills and the qualifications necessary to compete effectively in the labor market" (Holt, 2003, p. 119). Research from the Paul Sherlock Center on Developmental Disabilities tells us that segregation in schools has a lasting impact, as "community membership at age 10 predicts community membership as an adult; the more separate the child's education at age 10, the more likely they will be in the same type of setting at age 25" (as cited in New Jersey Council on Developmental Disabilities, p 5).

If the goal of education is to prepare every student to become a contributing member of society then we need to acknowledge and analyze why many individuals with disabilities continue to be stigmatized and marginalized in American society (Johnson, 1999; Mitchell, 1999; Scotch, 1984; Taormina-Weiss, 2012). This marginalization

allows individuals with disabilities to become dependent upon a society that has historically excluded them (Taormina-Weiss, 2012). Rioux & Valentine (2006) theorize that as long as people with disabilities do not have the same powers and privileges of the people who are developing, interpreting, and enforcing the community policies and laws, then marginalization, as we know it, will continue.

Understanding the internal and external barriers and obstacles that prevent students with disabilities from experiencing full physical and social inclusion is the key to developing effective educational programs that will alter the destined course of marginalization. As a result of this understanding, we can dispel the societal misconceptions that not only helped to fuel the low expectations held of an individual with disabilities, but that also served to undermine their capacity to know what is best for their own lives and to know how to achieve it (Johnson, 1999; Mitchell, 1999).

Overcoming Barriers – the Dignity of Risk and Self-Determination

Two key factors that will aid individuals with disabilities in overcoming societal barriers are self-determination and self-advocacy, and according to Izzo and Lamb (2002), "just as students with disabilities need direct instruction in effective learning strategies, they also need instruction and modeling in self-advocacy" (p. 43). Self-determination skills are one of the tools needed to enable individuals with disabilities to function independently and to advocate for their own needs in the effort to improve their quality of life. The term self-determination has a broad definition; It has been interpreted as an act undertaken by individuals, a skill to be taught and as a civil rights movement (Test, Fowler, Brewer &Wood, 2005). No matter how the term is used, a large part of self-determination is the fundamental belief that every person possesses basic human

rights and thus, deserves to be treated with respect. Individuals with disabilities must be afforded the *dignity of risk*, a phrase that grew out of the experiences of the deinstitutionalization of the developmentally disabled during the 1970s (Teel, 2011). Conventional wisdom at the time supported the notion that individuals with disabilities were incapable of self-sufficiency, and were, therefore, deprived of the opportunities the rest of us were afforded: the opportunities in which one may experience success or failure (Teel, 2011).

Denying an individual the opportunity to take risks creates a barrier to self-determination by denying a basic tool that is required in life: the knowledge of learning from experience and using that knowledge in the future (West Virginia Department of Health and Human Resources, 2010). Too often, individuals with disabilities are over-protected by parents and teachers, and, therefore, never get the opportunity to experience the consequences of poor choices. Risk taking provides individuals with disabilities different learning opportunities and new experiences within their environment so that they may test their own limits and discover capabilities they may not have known they had (Opportunity for Independence, 2011). Allowing individuals with disabilities to take risks and to move towards greater independence is an essential component in treating them as dignified adults.

By permitting individuals with disabilities to take risks, society can help to reduce and prevent learned helplessness, and in turn, strengthen independence, self-respect, empowerment and self-determination (West Virginia Department of Health and Human Resources, 2010). If teachers understand the dignity of risk component, they can then teach individuals with disabilities the skills of self-advocacy, thereby providing those

students with the tools necessary for thoughtful and pragmatic risk-taking (Teel, 2011).

Geo-literacy as a Foundation for Self-Advocacy

Subjects like geography are vital because they offer the student an opportunity to learn about facts, ideas and experiences that take them beyond the everyday and familiar. Statewide geography standards reflect the clear outcomes identified for all students including students with disabilities having, "Social Studies education provides learners with the knowledge, skills, and perspectives needed to become active, informed citizens and contributing members of local, state, national, and global communities in the digital age." (New Jersey Department of Education, 2009, p.1). The need for individuals with disabilities to develop geo-literacy skills should not be ignored. When teaching very young children, initial instruction of these skills should be introduced within the context of the student's everyday experiences. The same approach would be ineffective on older students with disabilities in that educators would be failing to prepare them to understand the world outside of their own experiences; limiting their ability to fully participate in making reasoned decisions about their own life (Major, n.d.).

Teachers must be aware that the decisions they make regarding the extent to which geo-literacy skills and content knowledge will be taught in their classrooms is critical to students with disabilities. Edelson (2011) expressed concerns that "the components of geo-literacy are neither widely taught nor well-taught in our schools today" (p.1). We must be deliberate in our geo-literacy instruction to engage all students, including students with disabilities in exploring how we as humans interact environmentally, politically, culturally and economically. Geo-literacy instruction must be cross curricular, which will allow for the discovery of the interconnections of sciences,

social studies, and humanities.

Teachers must develop an understanding of the importance of engaging students with disabilities in geo-literacy experiences that will have real-world implications. Students would also benefit from a more global curriculum that systematically teaches decision-making skills as well as provides opportunities for the student to practice the utilization of these skills in the classroom and beyond when faced with experiences that are both new and unfamiliar (Simeonsson, Carlson, Huntington, Sturtz-McMillen & Brent, 2001). Out-of-school experiences that are critical to building geo-literacy skills include spending purposeful quality time exploring the natural environment, promoting experiencing to travel outside of routine places, and suggesting civic engagement by encouraging participation in community service (Edelson, 2011). The relationship a student with disabilities has with members of their community is a direct reflection of the social interaction that individual has experienced within their environment. The connection to their environment will dictate the individual's access to society as well as their inclusion within it (Simeonsson, et.al, 2001).

It is time to teach students with disabilities that there is an entire world waiting to be noticed. As self-advocates, individuals with disabilities will have the tools they need to be empowered, to speak up and make their voices heard and views known. With the proper instruction and guidance individuals with disabilities can make their own choices regarding how they want to live their lives and can advocate for their rights (Mitchell, 1997). Formal geo-literacy instruction along with the experiences that come with the inclusion in and the interaction with their environment will provide individuals with disabilities the tools necessary in functioning independently and advocating for their own

needs in the effort to improve their quality of life.

Statement of the Problem

According to Hahn (1998) discrimination against people with disabilities has become so ordinary that it is almost invisible to society. For students with physical and cognitive differences, it can be the institutional structures that stand in the way of full participation in society. Erevelles (2000) writes that the traditions of public education continue to marginalize students with disabilities by establishing and maintaining two educational systems: one for students with disabilities and another for typically developing students. Based on these past practices:

> More than five million students with disabilities have experienced segregation in special education programs that are, in effect, both separate and unequal. This has contributed to the continued unemployability of disabled people in a highly competitive market economy and thus the conditions of poverty in which many of them live. (Erevelles, 2000, p.25)

Schools must play a part in responding to the needs of a diverse student body with practices that are rooted in equity and social justice. Educators understand that individuals construct knowledge from their experiences interacting with the environment (Tuan, 2002). Because of this, geographic skills and content knowledge become an essential part of reducing the barriers that impede the interaction between the individual with disabilities and his/her environment. Hawkesworth (2001) agrees noting, "It is the interaction between the individual and their surroundings that quite literally constructs disability" (p. 300).

Understanding the facets of Critical Disability Theory (CDT) is essential as

schools analyze their institutional structure and practices. CDT is a framework that helps us to understand the multifaceted relationship between the impairment, the individual's response to that impairment and their interactions with the physical and social environment (Pothier & Devlin, 2006). Disabilities are not barriers to independence, as no impairment is by itself is disabling. CDT suggests that the most debilitating outcome of a disability is how society has constructed the social and physical environment that determines the ways in which the individual interacts and participates. CDT recognizes that the failure of society to accommodate for individual differences can hinder access, as well as participation and independence, and as a result introduces the ongoing and sustaining paradigm of disability into an individual's life (Lang, 2001; Pothier & Devlin, 2006; Hawkesworth, 2001).

Changing that paradigm and having a fulfilling life involves taking risks in order to change the status quo and the expectations society places on individuals with disabilities. This core idea from Yi-Fu Tuan (1997) is reiterated to reinforce the concept that, "place is security, space is freedom; we are attached to the one and long for the other." (p.3). We need to remind ourselves that all people, including individuals with disabilities, have a basic need for both refuge and autonomy; geographic skills and content knowledge will set the foundation which will allow for the taking the risks in order to achieve both refuge and autonomy.

The misconceptions surrounding the ability of individuals with disabilities to be involved in making decisions for themselves are ongoing (Johnson, 1999). Armed with geographic skills and content knowledge, individuals with disabilities will build the foundation necessary to help them develop a sense of place and the ability to make well-

reasoned decisions. If students with disabilities lack of access to this knowledge base, the marginalization of this group will continue, and they will remain on the outside looking in. Becoming geo-literate will provide the tools that will enable individuals with disabilities to function independently within society and to advocate for their own needs as a means to improve their quality of life.

Purpose Statement

The purpose of this quantitative study was to investigate if a relationship exists between separate classroom placements of special education students and in the instruction of the core subject area of geography. Geographic skills and content knowledge will serve as the foundation for both the development of a "sense of place," and the growth of self-determination skills. A second purpose will be to study to the extent to which teachers in these settings believe these geographic skills and content knowledge are important for individuals with disabilities in order to self-advocate later in life.

The setting for this study will be New Jersey, both my current state of residence and the state of residence in which I have gained all of my professional experience as a special educator. Data will be collected through an e-survey completed by New Jersey certified special education teachers who are currently teaching children with disabilities in separate special education classrooms and programs in federal and state funded programs.

Research Questions

I will use an e-survey sent out by email to current special education teachers in separate special education classrooms in New Jersey to collect quantitative data that will

help answer the following research questions:

Research Question 1

Is there is a statistically significant relationship between program placement and the student's access to books and materials on the national geography standards?

Research Question 2

Is there is a statistically significant relationship between program placement and the students' participation in instruction linked to the national geography standards?

Research Question 3

Is there is a statistically significant relationship between program placement and progress made towards the national geography standards?

Research Question 4

To what extent do teachers believe these geographic skills and this content knowledge are important for individuals with disabilities in order to self-advocate later in life

Conceptual Framework

Understanding the human element within the study of geography is an important element of geo-literacy. Humanistic geography relies on the foundation that all people must develop a sense of place in order to understand their own place in this world (Cresswell, 2004). Actively exploring spaces and manipulating objects within their environment provides children with the experiences necessary in order to develop cognitive skills and begin to understand the world around them (Proshansky & Gottlieb, 1989).

As mentioned before, Critical Disability Theory supports the position that no

impairment is, by itself, disabling, but that the handicapping situation is introduced when society fails to accommodate for individual differences that limit the individual's access and participation in society (Lang, 2001; Pothier & Devlin, 2006). This suggests that the most debilitating outcome of the disability is not so much the disability itself, but it is how the deficit changes the way in which the individual interacts with and participates in activities within their environment.

Significance of the Study

This study will have significance for its impact on future policy, practice and research surrounding the provisions of special education for students with disabilities.

Expanding the Implementation of Educational Policy

The *Individuals with Disabilities Education Act (IDEA)* requires that schools be held accountable by supplying data on the progress made by students with disabilities within the general curriculum *(IDEA, 2004)*. Congress specifically states in *IDEA*:

> Almost 30 years of research and experience has demonstrated that the education of children with disabilities can be made more effective by having high expectations for such children and ensuring their access to the general education curriculum in the regular classroom, to the maximum extent possible. (p. 117)

As a long time employee of the New Jersey Department of Education's Office of Special Education Programs, I am in a position to utilize the results of this study to possibly impact both state policy and the content of the trainings and technical assistance required for schools. The information obtained by the research will be used to provide specific guidance to schools in the implementation of the mandates outlined in *IDEA* regarding the accountability on the part of the schools to monitor student outcomes in all content

areas.

Improving Educational Practices

Segregating students with disabilities into special education classrooms deprives them of the benefits that a general education classroom has to offer. Research tells us that the Individualized Education Programs (IEP) of students with severe disabilities who are educated in general education classrooms are of a higher quality than the IEP designed for students who are educated in separate special education classrooms. The IEP of the student in a general education classroom includes more goals and objectives that are more closely aligned to the academic skills required to access the general education curriculum (Hunt & Farron-Davis, 1992).

With the goal of eliminating ineffectual past practices found in schools, I have the capacity, as a tenure track professor in a special education teacher preparation program in New Jersey, to share the results of this study with my colleagues and students. The intent is to have an impact on the next generation of teachers and educational leaders by changing long held practices at the start of an educator's professional career rather than later when teaching habits and practices are firmly set in place.

Expanding Educational Research

Further research on the educational decision-making regarding programs for students on the autism spectrum is sought and needed by students and families of students with Autism Spectrum Disorders. According to the position statement from the Autism Self-Advocacy Network (2011):

> When school districts maintain segregated classrooms and separate schools for students with disabilities, such as children on the autism spectrum, this is not an

> educational necessity but instead reflects outdated and exclusionary attitudes. There are many options for inclusion available for autistic students. Although inclusion encompasses more than simple integration and requires the hiring of additional teachers and other professionals who are knowledgeable about the specific educational needs of autistics and other neurological minorities, the costs are minimal when compared to the impact of a lifetime of exclusion and underemployment. Providing an inclusive educational program is not only the right thing to do from an ethical and long-term societal perspective; it is also considerably less expensive for the taxpayers than building new segregated facilities, as some school districts have done in recent years. (p.1)

Limitations

One limitation of this study is the way the geography standards are now presented to teachers within the New Jersey Core Curriculum Content Standards for Social Studies. Without a clear identification of which geographic skills and content knowledge are aligned with which general education grade level, teachers of students with disabilities are at a disadvantage when designing instruction and providing accommodations for students with disabilities at multiple grade and instructional levels in the same classroom.

The second limitation is the method used to obtain survey participants for the study. Deciding to study a large population, such as special education teachers in New Jersey, creates limitations due to the geographic variability of over 600 schools districts with no central repository for identification or contact information. Surveys will be emailed to individuals with supervisory responsibilities over the teachers, but there is no

guarantee that with this method every teacher will have an opportunity to participate in the survey. This is a known limitation since very often researchers are unable to survey all the individuals in the population due to real life issues such as access, time and inconvenience.

The third limitation of the study is the use of a survey. The survey will be both voluntary and self-reported, with participants indicating the degree to which their current teaching practices reflect the questions provided in each section of the measurement instrument. Human nature expects a certain number of people to respond to the survey in the way they think they ought to, which may or may not be an accurate representation of what is actually happening (Wheeler, 2013).

Organization of the Study

The first chapter of this dissertation will introduce the topic and present background information that will support the purpose of the research, research questions, significance of the study, and the overall limitations. The second chapter of this study will provide a comprehensive review of the literature surrounding the topic. The third chapter will address the methodology used for the study. It will include topics of participant selection, instrument development and data collection, data analysis, and the ethical safeguards built into the research design. The fourth chapter will provide an overview of the data collected and the accompanying analysis. Chapter five will provide a discussion of the research findings, the limitations of the current study, suggestions for future research, and final conclusions.

Chapter 2

Literature Review

Education Reform: A Historic Look at Public Policy

Historically, universal access to a quality education has been a cornerstone of American democracy (Burris, Welner & Bezoza, 2009). In the 1800s, educational reformer and politician, Horace Mann, identified as the "father of the common school movement" (p. 287), argued that developing a universal system of public education would be the best way to transform the nation's disorderly young men into disciplined, sensible citizens (Good, 2008).

Henry Barnard, another nineteenth century American politician and education reformer, advocated for universal access to education for all children (as defined by the race, gender, and class prejudices of his day) (Jenkins, n.d.). Additionally, Barnard advocated for segregated programs for "colored" children and evening school programs for working children (Jenkins, n.d., p.1). In order to provide all students with the ability to continue to learn the real-world skills that reached beyond both textbooks and classrooms, Barnard fought to ensure that schools have access to libraries and an assortment of educational materials such as maps and globes.

While these early reform agendas sought to improve the quality of education for all students, the definition of 'all students' and 'quality education' have changed over time. That which constitutes a 'quality education' takes on a broader perspective when we look at children from marginalized populations. UNICEF's assessment of quality education, for example, takes many elements into consideration:

In all aspects of the school and its surrounding education community, the rights of

> the whole child, and all children, to survival, protection, development and participation are at the center. This means that the focus is on learning, which strengthens the capacities of children to act progressively on their own behalf through the acquisition of relevant knowledge, useful skills and appropriate attitudes; and which creates for children, and helps them create for themselves and others, places of safety, security and healthy interaction. (United Nations Children's Fund, 2000, p.4)

Historically, education reforms occurred locally as well as nationally, and resulted in many different outcomes over time. Access for all students to a quality education has been a recurring theme throughout our nation's history, with the ultimate goal of preparing the next generation to live in an increasingly global society (Whelan, 2009).

Education Reform in the Nineteenth Century: The Beginning of Change and Growth

The nineteenth century saw many changes to public education, much of it based on the work of European educator Johann Comenius (1592-1670) (Moore, 2008; Phillips, 1910). As a teacher, Comenius wrote about the universal principals needed for a proper education. When writing about the thoroughness of teaching and learning, Comenius wrote:

> The proper education of the young does not consist in stuffing their heads with a mass of words, sentences, and ideas dragged together out of various authors, but in opening up their understanding to the outer world, so that a living stream may flow from their own minds, just as leaves, flowers, and fruit spring from the bud on a tree. (as cited in Keating, 1896, p.299)

Geographical Focus: Home Geography

Comenius interpreted teaching in a broad sense, with order and naturalness as the most essential qualities. Comenius's work focused on education according to nature and espoused that children needed to develop a comprehensive knowledge of their physical and social surroundings in order to attain a complete and competent education. This perspective was the beginning of what we now recognize the study of home geography; the focus on a student's immediate environment, as a precursor to learning about more distant places (Moore, 2008; Phillips, 1910). The study of home geography in the early 1800s established the prominence of geography education in the nation's schools, and by the 1830s, based on Comenius's work, geography was considered the most important subject within the school curriculum and remained that way throughout most of the nineteenth century (Rumble, 1946).

Access to Education: A Sign of the Times

Despite the changes made to provide access to public education for many students in the nineteenth century, educational inequality continued to exist. During these times, white men were assumed to be the only members of society who could handle worldly affairs, and thus, were the only ones who needed to be able to both read and write (Monaghan, 1988). White women were thought to be mentally unequal to white men and therefore, needed only to be able to read religious materials (Monaghan, 1988). At this time African Americans were excluded from accessing a public school education across much of the country, with many southern states going as far as to establish laws explicitly prohibiting it (Anderson, 1988). Many children of immigrants and certain religious groups were also prohibited from attending public schools, leading the Catholic Church

to establish their own system of schools across the country (Walch, 2003; Hennesey, 1983). Students with disabilities, who were once confined to jails, were now being housed in segregated institutions specifically designed to provide physical care and treatment, but not education (Drimmer, 1993; Shapiro, 1999).

Students with disabilities have been a marginalized group throughout much of this nation's history (Smith, 2004; Esteves & Rao, 2008; US Dept. of Education, Office of Special Education, n.d.). During the nineteenth century, society as a whole regarded individuals with disabilities as unhealthy, defective and deviant; for centuries these individuals were treated as objects to be pitied and feared (Burtner, n.d.). There existed widely held beliefs in this country that education was unsuitable for students with disabilities, and at times in our history it was acceptable for students with disabilities to live as uneducated members of our society (Burtner, n.d.; Smith, 2004).

Education Reform 1900- 1953:

Radical Social and Educational Change

Near the turn of the century, education reform had become an ongoing priority for the nation. In 1892, the National Education Association's Committee of Ten on Secondary School Studies, became the first major educational reform movement (Moore, 2008). The subcommittee on geography shifted the focus away from home geography in order to establish a focus on physical geography (Moore, 2008, Hill & LaPrairie 1989; Evans 2004). This first shift in focus in geography education served as the catalyst for the instability found in the curriculum that continues to plague the field today.

During the early 20th century, the study of physical geography grew in popularity at the primary and secondary levels. However, in 1916, the National Education

Association's (NEA) Commission on the Reorganization of Secondary Education founded the formal study of social studies, which included the study of geography, as well as history, economics and civics (Evans, 2004; Moore, 2008; Saxe 2004). This formal recognition of social studies as a school subject continued with the practices from the 1800s when geography was taught as a discrete subject area in the growing system of public schools (Hill and LaPrairie, 1989;Moore, 2008; Mungazi, 1999).

Geographical Focus – the Study of Landscapes

During the early 1900s, a handful of geographers revisited the work of Comenius and his theories concerning home geography. Building on the notion that people interact within certain environments, German geographer Otto Schlüter introduced the field of geography to the study of cultural landscapes, marking what some researchers believe to be a turning point in the study of geography (James & Martin, 1981). Schlüter argued that by defining geography through the concept of landscapes, geography would become its own subject matter rather than one shared by another academic discipline (Elkins, 1989; James & Martin, 1981). His work identified-two forms of landscape: original landscape, one that existed before human changes, and the cultural landscape, one that was created by changes made by humans (Elkins, 1989; James & Martin, 1981). Schlüter's view was that the study of geography should encompass the investigation of the various changes humans to make their environment, and thus, the impacts these changes have on both original and cultural landscapes.

The study of cultural landscapes introduced by Schlüter, was further promoted and developed by Carl Sauer (1889-1975), who became the University of California Berkley's Geography Department Chair in 1923. Sauer (1925) explained that, "the

cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent, the natural area is the medium, and the cultural landscape is the result" (p.6). Within this definition, human cultures become a force that plays a critical part in the alteration of the visual features of the natural landscape.

Geography and Higher Education

During the first half of the 1900s, at the same time that the study of physical geography was growing in popularity at the primary and secondary level, the field of geography was struggling within higher education. Despite an increase in the number of students taking college level geography classes, the study of geography became increasingly unstable, varying from discrete courses to a minimal share of the broader social studies curriculum (Dunbar, 1996; Jenness, 1990; Moore, 2008; Schulten, 2001;). This marginalized status at the time is noteworthy in understanding the events that followed.

Harvard University. Arguably, one of the most significant events to impact geography education was the 1948 decision to drop geography as an academic discipline at Harvard University. Harvard President James Conant declared geography to "not be a university subject" (Smith, 1987, p.156). This was a momentous decision considering that in its 375-year history, this is the only academic program ever eliminated at Harvard (Smith, 1987). This decision swayed other universities to follow suit and eliminate their geography departments, including such influential institutions such as the University of Pennsylvania (1963), Stanford, (1964) and Yale (1967) (Murphy, n.d.; Cohen, 1988, Smith, 1987). Various theories behind the decision to drop geography at Harvard have emerged; two of those theories specifically posit that the drop was due to problems

stemming from faculty ego and personality conflicts, or to answer financial solvency issues for the university (Harvard Magazine, 2006; Cohen, 1988; Smith, 1987).

Another important theory for the elimination of geography in higher education is that the field, at that time, lacked any clear identification as either a physical science or a social science. The emergence of Sauer's work on human geography led scholars to believe that geography was drifting away from its position as a strict scientific area of study to a less precise social science; one that is not an important area of study at prestigious institutes of higher education (Harvard Magazine, 2006; Cohen, 1988; Smith, 1987). Whatever the reason, this decision to eliminate geography at Harvard, according to the late urban geographer Jean Gottmann, was, "a terrible blow to American geography" and one from which, "it has never completely recovered" (Harvard Magazine, 2006, p. 47).

Education Reform 1954 – 1970:

Court Ordered and Legislative Changes

The first significant federal legal case fought on behalf of students from a marginalized population was not fought for the rights of students with disabilities, but was instead addressed the racial segregation and educational inequities for students of color. In the 1954 U.S. Supreme Court decision in *Brown v. Board of Education,* the court determined that segregation on the basis of race violated students' constitutional rights to equal educational opportunities.

The Brown decision paved the way for the growing understanding that all people, regardless of race, gender, or disability, have a constitutional right to a public education (Esteves & Rao, 2008; Smith, 2004; Yell, et.al, 1998; US Dept. of Education, Office of

Special Education, n.d.). Since the *Brown v. Board of Education* decision in 1954, the transition to a non-segregated education for students with disabilities in public schools has been slow.

The passing of the *National Defense Education Act of 1958*, a science initiative designed to increase the post-war technological capability and power of the United States, began a resurgence of educational reform (Stoltman, 1989; Schwegler, 1982). General education teachers were tasked with improving student skills in math and science as a way to increase the power of the United States post war, but a focus on the needs of students with disabilities were regarded as unnecessary (Shapiro, 1999).

Geographical Focus – the Alignment with Physical Science

It was also during this time, based on the same post war fears of the *National Defense Act*, that the study of geography became even more closely linked to the study of other physical sciences (Marcus, 1979; Murphy, n.d.). In 1961, the National Science Foundation funded the High School Geography Project (HSGP), which developed instructional materials to help update high school geography courses across the country (Bednarz, Heffron, & Huynh, 2013; Stoltman 1989; Schwegler, 1982; Association of American Geographers, 1966). These materials were designed to engage both students and teachers in the use of scientific data and geographic simulations in order to ask and answer geographic questions. At the same time, professional development opportunities were offered to teachers to prepare them for the integration of geography skills and knowledge into the curriculum (Bednarz, et.al, 2013; Stoltman 1989; Hill & LaPrairie 1989; Schwegler, 1982). Unfortunately, the project failed due to poorly designed implementation strategies; however, the failure of HSGP did provide the field with

information that could be used in future geography reform movements (Bednarz, et.al, 2013; Hill & LaPrairie 1989; Stoltman 1989).

Simultaneously, geography education programs were growing at the university level as well. The early 1960s saw the baby-boom generation enter the public school system; subsequently, public college and university-level geography education programs grew substantially in order to produce primary and secondary level teachers who could accommodate the increase in enrollment. Yet despite this increase, geography was unable to compete with the number of faculty and students in the other fields of social studies within higher education, namely sociology, political science, history and economics (Hill & LaPrairie, 1989; Murphy, n.d.).

Legislative and Court Ordered Changes

Many legislative and societal transformations also occurred during this era, which changed the treatment of, and attitudes toward, individuals with disabilities. Legal Advocacy groups, including the Americans Civil Liberties Union, fought to establish legal decisions that would expand the rights of individuals with disabilities (Switzer, 2003; Burtner, n.d.). In 1963, President John F. Kennedy established new systems of care for individuals with mental retardation by passing the *Mental Retardation Facilities and Community Mental Health Centers Construction Act* (Burtner, n.d.). The *Civil Rights Act of 1964* outlawed discrimination against race, ethnicity, religion and gender (Dinerstein, 2004; Burtner, n.d.). Consequently, the interpretation and implementation of this Act was applied to many other groups, including people with intellectual disabilities (Dinerstein, 2004; (Burtner, n.d.).

Elementary and Secondary School Act. In 1965, The *Elementary and Secondary School Act* (ESEA) was passed as part of President Johnson's War on Poverty (Spring, 1993; Lazerson, 1987; Graham, 1984). The ESEA was considered the most far-reaching educational reform of the times in that it was the first to exchange educational accountability measures for federal funding of schools (Spring, 1993; Lazerson, 1987; Graham, 1984). The ESEA was the first congressional legislation to identify the 10 key academic areas that all students must study, and geography was included in that list (Spring, 1993; Graham, 1984). President Johnson touted the ESEA as the most significant step taken by Congress in this century to provide help to disadvantaged students, but this Act identified disadvantaged students only by economic status, not by disability status (Graham, 1984).

Educational Reform 1970's:

Spaces and Places

The 1970s were an eventful time in education. The broadening implementation of civil rights legislation brought more cultural changes to the country and its schools (Super, 2005; Franciosi, 2004). These cultural shifts changed the way classrooms were run. Walls between classrooms were removed to promote movement and collaboration among groups, and students were now able define their own spaces for learning (Super, 2005; Ravitch, 2000). This open classroom concept redefined the use of classroom spaces into student-centered interest areas (Super, 2005; Ravitch, 2000).

Geographical Focus: Space and Place

At the same time changes were occurring in the spaces within schools, some geographers were moving away from Sauer's work and gravitating towards an

understanding of the ways in which people experience landscapes and consequently, the meanings that we bring to those places (Cresswell, 2004). Specifically, geographer Yi-Fu Tuan began to explore the emotional connections people developed with different places (Tuan, 1979; Cresswell, 2004). Tuan believed that in understanding the lived experiences of people and their interactions with spaces we could better understand why the same places and landscapes have multiple meanings across cultures and time (Tuan, 1979; Cresswell, 2004). With this new focus, the geographical concepts of space and place had become intertwined. The concept of space remained linked to location, an identifiable point on the earth's surface (Cresswell, 2013). Place, however, became more than just location, place now described our attachment of meaning to different locations (Cresswell, 2013). Tuan's work explored an individual's development of this sense of place, based on their knowledge and experiences of interacting within different spaces (Tuan, 1997). This foundational sense of place helps people to understand their own status within groups in their communities (Cresswell 2004).

The Rehabilitation Act of 1973

The focus on spaces and places was also present in the courts. In 1973, a mandate within *The Rehabilitation Act of 1973* authorized states to address the issues surrounding access to vocational rehabilitation for adults with significant physical and intellectual disabilities (Switzer, 2003; Burtner, n.d.). The concept of physical accessibility of public places was a significant aspect of the *Rehabilitation Act of 1973* (Switzer, 2003; Burtner, n.d.). This new focus on how people with disabilities utilize and interact with public spaces would be explored in depth in the late 1970s, at the same time Tuan's burgeoning work on the concept of place was influencing the field of geography. As individuals with

disabilities began to interact within their communities, their budding sense of place allowed them to understand how their circumstances impact their participation in society; establishing this Act was an important precursor to many changes to come.

In contrast to what was happening in the courts, it was still common to see the full exclusion of students with disabilities from public schools. As recently as 1970, many states had laws that excluded children who were blind, deaf, cognitively impaired or emotionally disturbed from public schools (US Dept. of Education, Office of Special Education, n.d.). At that time, up to half of the estimated 8 million school-aged children with disabilities who were eligible for public school services were either fully excluded or inappropriately educated by the public schools (Pulliam & Van Patten, 2006). This realization was the impetus for significant change in special education policies and procedures.

The Education for All Handicapped Children Act (PL. 94-142)

On Nov. 29, 1975, President Gerald Ford signed into law the *Education for All Handicapped Children Act* (PL. 94-142). The law made meaningful changes to school procedures regarding the education of students with disabilities. The law also, however, failed to address some key issues. While the act focused on providing access to educational programs for students with disabilities, it was unsuccessful in defining that access (Yell & Drasgow, 1999). Despite the focus on physical access to spaces outlined in the *Rehabilitation Act of 1973*, schools were not yet mandated to provide physical accessibility in public school to all students (Switzer, 2003; Burtner, n.d.). These geographic barriers remained an issue since the interpretation of the laws and decision making on what exactly constituted access to a free and appropriate public education

rested in the hands of the courts (Pulliam & Van Patten, 2006).

Education Reform 1983-2000:

A Nation at Risk

The economic crisis of late 1970s and early 1980s incited fear among the general population that the cause was somehow related to a weakness in public education. As a result, most Americans believed that there was an urgent need to improve the quality of education in our nation's schools (Heise, 1994). Those fears were heightened with the publication of a report that showed a decline in scores on both standardized tests and the Scholastic Aptitude Tests (SATs); the findings suggested that students in this country were being out-performed by their counterparts in other countries (Heise, 1994).

The sense for urgent change peaked in 1983 with the release of *A Nation at Risk: The Imperative For Educational Reform* (Heise, 1994; National Commission for Excellence in Education, 1983). *A Nation At Risk*, the final report of President Ronald Reagan's National Commission on Excellence in Education, investigated the state of the American education system. Drawing heavily on data that compared the United States with other advanced nations, the report cited inadequacies in the American public education system that could threaten the American student's ability to compete in a more globalized society (Heise, 1994; National Commission for Excellence in Education, 1983). In part, the report states:

> Our Nation is at risk . . . The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people . . . If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might

well have viewed it as an act of war . . . .We have, in effect, been committing an act of unthinking, unilateral educational disarmament . . .". (p.1)

Thirty years later, most researchers agree that *A Nation at Risk* was steeped in Cold War rhetoric and ideology that, in fact, misinterpreted the data: the data actually showed a steady or slowly improving growth rate at the time on every measure (Ansary, 2014; Stedman, 1994; Miller, 1991). Despite the controversy, however, the report continues to be viewed as a landmark event in our country's educational history in that it initiated the introduction of higher academic standards, which eventually led to a series of extensive educational reform movements that would include the development of national educational standards for all students.

National Education Goals Panel

A Nation at Risk influenced President George H.W. Bush to meet with the nation's Governors in 1989 at the first National Education Summit, held in Charlottesville, Virginia. This bipartisan group of leaders established national educational goals that would provide a common educational direction for all states, while it also provided states and local communities with the autonomy to decide how to achieve these goals on their own. This summit led to the adoption of six national general education goals for all students,

Goal 1--readiness for school,

Goal 2--high school completion,

Goal 3--student achievement and citizenship students,

Goal 4--science and mathematics,

Goal 5--adult literacy and lifelong learning, and

Goal 6--safe, disciplined, and drug-free schools (Executive Office of the President, 1990; Swanson, 1991). It was expected that by the year 2000, the implementation of these goals would change the trajectory of public school students, by preparing them for success in a competitive global community.

Individuals with Disabilities Education Act (IDEA)

Changes to education on the national level, including *A Nation at Risk*, influenced changes to the *Education for All Handicapped Children Act* (PL. 94-142) reauthorizing it in 1990 as P.L.101-476 and renaming it The *Individuals with Disabilities Education Act* (*IDEA*) (Martin, Martin, & Terman, 1996; Yell, et al., 1998). The Act mandates that individuals with disabilities are not only entitled to equal access to a quality education, but it also provides for additional special education services and procedural safeguards (Martin, et al., 1996; Yell, et al., 1998). The *IDEA* has four distinct sections, with Part A defining the terms used and Part C providing the requirements for infants and toddlers with disabilities. Public schools fall under Part B of the Act, which outlines the educational guidelines for educating individuals with disabilities ages 3-21. By law, states are required to provide a free and appropriate public education in the least restrictive environment to students eligible under the Act (Martin, et al., 1996; Yell, et al., 1998; US Department of Education, 2010). Federal funding under the *IDEA* is specifically provided to states to help local schools defray the extraordinary costs associated with educating students with disabilities, and the *IDEA* distinctively stipulates that the receipt of these funds mandates that the states and schools abide by the regulations of the *IDEA* (Martin, et al., 1996).

The final section of the *IDEA,* Part D, outlines the national activities that are to be

implemented in order to improve the school's role in the transition of individuals with disabilities into post-high school support and services, with the goal of preparing students with disabilities to become independent citizens who are able to participate fully in society (Martin, et al., 1996; Yell, et al., 1998; US Department of Education, 2010).

Geographical Focus: National Geography Guidelines

Another component of the American education system that proposed change following the publication of *A Nation at Risk* was geography education. In response to the report, the Association of American Geographers (AAG) and the National Council for Geographic Education (NCGE) a established a joint committee in 1984, and published the *Guidelines for Geographic Education: Elementary and Secondary Schools*. Based on the premise that geo-literacy skills are necessary if students are to compete in a globalized society, the document was designed to specify a clear, wide-ranging set of goals for K–12 geography education curricula across the nation (Bednarz, et.al, 2013; Bockenhauer, 1993; Joint Committee on Geographic Education, 1984; Lanegran & Natoli, 1984).

The guidelines described three basic elements that should be taught in the content area of geography, including: having a geographic perspective of the world; developing fundamental themes including the study of place, movement, regions and human/environment interactions; and finally the required core skills of asking geographic questions, acquiring, analyzing and presenting geographic information, and developing and testing geographic generalizations (Bednarz, et.al, 2013; Joint Committee on Geographic Education, 1984). The public response to the guidelines was positive, encouraging the NCGE and AAG to advocate for the implementation of the

recommendations of the guidelines nationwide. In 1985, the American Geographical Society (AGS) and the National Geographic Society (NGS) joined with the NCGE and the AAG to build a national coalition of geographers and geography educators to form the Geographic Education National Implementation Project (GENIP) which was designed to coordinate the efforts of each group and design a national agenda that reignited a focus on high quality geography education (Bednarz, et.al, 2013; Geography Education Standards Project, 1994).

Geography for Life: National Geography Standards. In 1994, GENIP published *Geography for Life: National Geography Standards* (Geography Education Standards Project, 1994). This document supported the agenda of the National Education Goals by identifying eighteen national geography standards under six essential elements, which specified what students should know, understand, and accomplish in order to achieve geo-literacy. As discussed briefly in Chapter 1, and explicated below, the six essential elements for both the New Jersey and national geography standards are:

. The World in Spatial Terms

. Places and Regions

. Physical Systems

. Human Systems

. Environment and Society

. The Uses of Geography (Geography Education Standards Project, 1994).

Goals 2000

Advancing the work of President H.W. Bush, President Clinton signed the *Goals 2000: Educate America Act* (P.L. 103-227) into law in 1994. This law changed the

National Education Goals Panel from a committee of Governors to an independent agency of the executive branch of the federal government (Heise, 1994; National Educational Goals Panel, 1998). This Act also revised the original general education goals established (those listed above) for all students listed above, to include two more goals: guiding professional development for teachers and encouraging parental involvement and participation. Fundamentally, the goals created two new standards so that by the year 2000:

> Standard 4. Teachers will have the knowledge and skills that they need to instruct students for the next century,
>
> Standard 8. Schools will promote parental involvement and participation (National Educational Goals Panel, n.d.).

As part of these revised goals, by the year 2000, all students would leave grades 4, 8, and 12 having demonstrated proficiency in English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography (National Educational Goals Panel, n.d.; Swanson, 1991). This was an effort to ensure that every school in America would prepare all students for responsible citizenship and lifelong learning, as well as for productive employment (National Educational Goals Panel, n.d.; Swanson, 1991).

Individuals with Disabilities Education Amendment of 1997

The requirements of the *IDEA* to provide a free and appropriate education in the least restrictive setting led to the inclusion of some students with disabilities into general education classrooms, a practice most commonly referred to at the time as mainstreaming, but the majority of students remained separated in schools and in

classrooms designated for students with disabilities only (Karger, 2005; Lyon, Fletcher, Shaywitz, Shaywitz, Torgesen, & Wood, 2001). This practice often labeled special education spaces as segregated, separate places, rather than creating need-based individualized support and services for children as Congress intended (Karger, 2005). Congress evaluated the situation as follows, "despite the progress, the promise of the law has not been fulfilled" (H.R. Rep. No. 105-95, 1997).

In 1997, *IDEA* was amended again to shift the focus of schools toward being responsible for providing students with disabilities with access to programs that enforced both meaningful participation, and the identification of measurable progress made towards the general education curriculum (Karger, 2005; Hardman & Nagle, 2004; Lyon, et al., 2001). The 1997 reauthorization amended the Act to specifically add the requirement that students with disabilities have access to the general curriculum – i.e., the same curriculum provided to students without disabilities, in order to raise the expectations of the educational performance of students with disabilities (34 C.F.R. § 300.347(a)(1)(i)). The reauthorization identified the same content areas that were established in the *Goals 2000 Act*, and it was made abundantly clear that the academic achievement of students with disabilities in the content areas of English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography was a national priority.

Monitoring and Assessing Progress Towards the Standards

According to legislation, the National Goals Panel was assigned with the responsibility of monitoring both national and state progress toward the eight national educational goals established under the *Goals 2000: Educate America Act*. In addition,

the Panel was obligated to report on the progress made towards the established goals as well as to identify the necessary action(s) to be taken by the federal, state and local governments in order to ensure the achievement of these goals (Heise, 1994; National Educational Goals Panel, 1998).

National Assessment of Educational Progress (NAEP). Educational progress was monitored through the utilization of the National Assessment of Educational Progress (NAEP) assessments from The National Center for Education Statistics (Institute for Education Sciences, n.d.). The NAEP assessments are a uniform evaluation given nationally, and they serve as a collective metric for all states and selected urban districts (Institute for Education Sciences, n.d.). The NAEP assessments are conducted cyclically in the content areas of mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history (Institute for Education Sciences, n.d.). In 1994, 2001 and 2010, a national sampling of students, including students from New Jersey, participated in a geography assessment designed to measure different levels of the understanding of content knowledge in the subject of geography, as well as a student's knowledge of geography within the context of space and place (National Center for Education Statistics, 2011).

The NAEP assessment in geography was designed around two elements: content knowledge and cognitive skills. Therefore, questions on the NAEP geography assessment tested for both of these elements (National Center for Education Statistics, 2011). Geographic content knowledge includes an understanding of the different places on the earth's surface, including spatial patterns and how they can change over time. Cognitive skills are more complex and include the types of thinking or mental processes that are the

foundation for understanding. These skills include the ability to observe and recall information, and to attribute meaning to that which has been observed so that information can then be used in solving problems and proposing solutions. The consideration of cognitive skills on these assessments reflects the importance of learning geography concepts and vocabulary, so that students may develop an understanding of those elements and then apply those skills to real world problems (National Center for Education Statistics, 2011).

Education Reform 2001-2009:

The Era of No Child Left Behind

Since the publication of *A Nation at Risk*, the development of state and national academic standards has altered the conversation on education from offering high quality education for the privileged few, toward excellence and fairness for all students (Ushomirsky, Hall & Haycock, 2011; Heise, 1994).

The No Child Left Behind Act of 2001.

The *No Child Left Behind Act of 2001(NCLB)* presented the argument that higher educational standards would prepare all students for college, career and lifelong learning (Ushomirsky, et.al, 2011; West & Peterson, 2003; Heise, 1994). These higher standards included the same core academic subjects identified in the *Goals 2000: Educate America Act* and *IDEA*. The federal policy states that all students must be held to the same high standards, without creating different expectations for different students (Ushomirsky, et.al, 2011; Heise, 1994).

Aligning IDEA 2004 with NCLB. The *Individuals with Disabilities Education Improvement Act* was reauthorized in 2004 to align with and support *NCLB*'s mission to

close the achievement gap for students considered to be at-risk, including the identified sub-group of students with disabilities, and to improve the quality of special education programs at the state level (Harr-Robins, Song, Hurlburt, Pruce, Danielson, & Garet, 2013).

High stakes testing. Increasing student achievement for all students is the primary goal of high-stakes testing. Reducing the achievement gap between students with disabilities and their typically developing peers is one of the intended objectives of this mandate (Braden & Schroeder, 2004).

To achieve this high standard, *NCLB* established an increase in accountability for all students with disabilities by requiring their participation in traditional or alternative statewide assessments that evaluates the progress made towards the general education state standards (Levenson, 2012). One of the most constructive aspects of *NCLB* was the requirement for school districts to disaggregate the assessment results for students with disabilities (as well as other subgroups) for both reporting and accountability purposes. This new requirement highlighted that many students with disabilities were achieving at unsatisfactory levels and were not considered skilled enough to be able to be independent or succeed in future life (Levenson, 2012).

In preparation for these high-stakes tests, both the content knowledge and the cognitive skills needed to understand the test should be a focus that is present in the everyday curriculum (American Educational Research Association, 2000). The results found from the participation of students with disabilities in high stakes testing can serve as a reminder to special education teachers of the required grade level content and skills that must be addressed in separate special education classrooms. Students who are not

successful on the high stakes test should be provided educational remediation in the knowledge and skills areas that will appear on the tests so that they have the foundation needed to successfully apply what they have learned as a student to their adult lives (American Educational Research Association, 2000).

NCLB and the Impact on Geography. While *NCLB* set the standard that all students should be prepared for college, career and lifelong learning, the required testing was established for only the subject areas of English, reading/ language arts, science, and mathematics. While geography was also included in the list of core subjects, it was identified as an optional subject in the high stakes testing mandate (Ushomirsky, et.al, 2011; West & Peterson, 2003; Heise, 1994).

According to the National Geographic Society (2013), as schools became increasingly focused on the basic skills of reading, writing and mathematics they lost the powerful connection that geography has to these other subjects. According to Bednarz, Heffron, & Huynh (2013) on average, "the amount of geography instruction that students receive, the preparation of their teachers to teach geography, and the quality of instructional materials are inadequate to prepare students for the demands of the modern world." (p.7).

The formal study of geography has been inconsistent in this country. Once classified as a formal content area taught in discrete classes, *NCLB* policies have relegated the study of geography to now be a minor part of the social studies curriculum in our nation's elementary and secondary curriculums (Moore, 2008; Schulten 2001; Jenness, 1990).

Another current contributing factor to the negligible place geography has within a

school's curriculum may be the lack of a dedicated federal funding stream. Despite being one of the nine core academic subjects identified in *NCLB*, geography is the only content area to have never received direct federal funding (Speak up for Geography, n.d.). It is concerning to many in the field that geography is one of the four disciplines that make up the social studies content area, but the three other disciplines, history, civics, and economics, have all received some level of federal funding to improve education quality (Speak up for Geography, n.d.).

New Jersey Core Curriculum Content Standards

In response to the *NCLB* requirements, the New Jersey Department of Education adopted core curriculum content standards for all content areas in 2004 (New Jersey Department of Education, 2004). Social studies standard 6.6 addressed the content area of geography, mandating that, "all students will apply understanding, knowledge of spatial relationships and other geographic skills to understand human behavior in relation to the physical and cultural environment' (New Jersey Department of Education, 2004, p.33).

The principles surrounding the standards were based on the perceived need for students to develop the ability to think in, and to understand spatial terms as a way of understanding the relationships between people and the environment (New Jersey Department of Education, 2004). Students were to be guided in the utilization of both geographic tools and technology as methods in understanding the reasons for, and the consequences of political, economic and social change (New Jersey Department of Education, 2004).

The standards for New Jersey were based on *Geography for Life: National Geography Standards* and were organized around five of the six essential elements,

excluding the uses of geography elements (New Jersey Department of Education, 2004; New Jersey History Advocates & New Jersey Social Studies Educators, 2008).

2009 New Jersey Standards Revisions. The state of New Jersey adopted revised social studies standards in 2009; these revisions eliminated the isolated geography standard found in the 2004 standards (New Jersey Department of Education, 2009). Three new, more global Social Studies standards focused on U.S. History: America in the World; World History/Global Studies; and Active Citizenship in the 21st Century. Geography skills and knowledge have been embedded within each of these standards, (New Jersey Department of Education, 2009). With the change in standards, the Department of education recognized that:

> The challenges of the 21st century are complex, have global implications, and are connected to people, places, and events of the past. The study of social studies focuses on deep understanding of concepts that enables students to think critically and systematically about local, regional, national, and global issues. (New Jersey Department of Education, 2009, p.1)

Education Reform: 2010 – 2013

Where are we now: Evaluating the Outcomes of Education Reform

As Americans celebrated the 35th anniversary of *IDEA* in 2010, many have determined that the law was far from delivering on its promises as students with disabilities continued to face many barriers to learning and to their opportunities for inclusion (National Council on Disability, 2011). While the data does support that students are more likely now to be included into general education classes, a closer look of the data identifies that students with significant disabilities have not made similar

advances and that they remain primarily separated within education (National Council on Disability, 2011).

As expected, the achievement gap between students with disabilities and students without disabilities still exists, and unfortunately, the gap is not closing. NAEP Math and Reading scores show a persistently wide gap of 30 to 40 points that has remained steady over time (National Council on Disability, 2011). This published information still does not represent the full picture of student progress, as exclusion rates on the NAEP for students with significant disabilities remains high and inconsistent between tests, making comparison studies unreliable (National Center for Education Statistics, 2011).

The exclusion of students with more significant disabilities from all NAEP testing is ongoing and in the past has provoked outrage from special education advocates "we are deprived of essential information concerning the academic progress of children with disabilities and the quality of services they are receiving," said Jim McCormick, president of the Council for Exceptional Children (Council for Exceptional Children, 2005, p.1).

Access to General Education Geography Curriculum

As part of the 2010 NAEP geography assessment, the teachers of the students in fourth, eighth and twelfth grade completed surveys that included questions on how often teachers reported teaching geographic skills and content knowledge. Participants had the choice of selecting between responses: "never or hardly ever," "twice a month or less," "once a month," "once or twice a week," or "almost every day" (National Center for Education Science, 2011). The survey was broken down into six different geography topics including: other countries and cultures; environmental issues; use of maps and globes; natural resources; space and place; and finally, spatial dynamics and connections.

The results from the National Center for Education Science (2011) are displayed below in Table 2.

Table 2

Results 2010 NAEP Geography Assessment

	Studied about Natural Resources	Studied about environmental issues	Studied about Countries and Culture
Fourth Grade	75% once a month	75% once a month	75% once a month
Eighth Grade	70% Twice a month or less	63% twice a month or less	64% once a week or more
Twelfth Grade	65% once a month	75% once a month	75% once a month

This survey identified neither teachers nor students by any distinguishing marker(s), so we cannot surmise from this data that the access students with disabilities have to these geographic skills and content knowledge is equivalent to their non-disabled peers.

According to the state NAEP Coordinator, during the 2010 administration of the NAEP Geography Assessment, 42% of New Jersey students with disabilities, primarily students educated in separate special education classrooms, were excluded from participating in the assessment at the district level (T.McKinley, personal communication, December 13, 2013). This exclusion infers that we do not have a significant representative sample of either teacher reported or student reported data regarding the access students with disabilities in separate special education classrooms in New Jersey have to geographic skills or content knowledge.

Meaningful Participation in Instruction Towards the Geography Standards

The participation of students with disabilities in standards-based instruction is outlined in *IDEA*. According to *IDEA,* specially designed instruction, known as special education is defined as:

> Specially designed instruction means adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction—
>
> (i) To address the unique needs of the child that result from the child's disability; and
>
> (ii) To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children. [§300.39(b)(3)]

These definitions clarify that the educational programs and strategies used are decided individually based on the child's needs, which are determined by the impact the disability has on their ability to learn in the classroom

The goal for special education teachers is to develop specially designed instruction that will help students with disabilities to have meaningful access to general education curriculum and standards (Collins, Karl, Riggs, Galloway, & Hagar, 2010; Shapiro, 1999; Gartner & Lipsky, 1987). The provisions of special education and specially designed instruction should be provided in any classroom, and should be based on the least restrictive environment for the child.

Historically, the act of labeling students with significant disabilities helped to provide the rationale for removing students from general education classrooms. It was commonly thought that by educating these students in separate special education classrooms they would benefit from both a different curricular body of knowledge and from the attention received in smaller classrooms by specially trained teachers utilizing specialized materials (Shapiro, 1999; Gartner & Lipsky, 1987).

Research tells us that there is no compelling evidence that suggests that separate special education classrooms and programs have significant educational benefits for any student with disabilities (Teigland, 2009; Santoli, Sachs, Romey, & McClurg, 2008; Dawson, Delquadri, Greenwood, Hamilton, Ledford, Mortweet, Reddy, Utley, & Walker, 1999; Shapiro, 1999; Gartner & Lipsky, 1987). On the contrary, there is substantial research and growing evidence that students with disabilities who are educated in general education classrooms for at least a portion of the day outperform students with comparable disabilities who are educated in separate classrooms (Teigland, 2009; Santoli, et. al., 2008; Shapiro, 1999; Gartner & Lipsky, 1987).

Furthermore, in the studies that focused on academics, research revealed that many students with significant disabilities who were educated in separate settings did not have access to or did not participate in instruction that was aligned with the general education academic standards (McDonnell, McLaughlin, & Morison, 1997; McGrew & Evans, 2004; McGrew, Thurlow, & Spiegel, 1993; McLaughlin, Nolet, Rhim, & Henderson, 1999). While there is some research that identifies issues with reading and math instruction, missing from the research is how much direct instruction in geographic skills and content knowledge students with significant disabilities who are educated in separate special education classes have access to.

Measurable Progress Made Towards the Geography Standards.

Despite geography's status as a core academic subject within *NCLB* for the previous ten years, the 2010 NAEP overall geography scores were less than stellar when compared with the testing from 1994. While some progress was demonstrated at grade 4, the progress fails to extend throughout the ensuing grade levels. The results from the

National Center for Education Statistics (2011) are displayed in Table 3.

Table 3

NAEP 2001 and 2010 Geography Scores compared to 1994 NAEP Geography Scores

	2001	2010
Grade 4	Higher than 1994	Higher than 1994
Grade 8	No statistical difference from 1994	No statistical difference from 1994
Grade 12	No statistical difference from 1994	Lower than 1994

2010 NAEP Scores of Students with Disabilities

The 2010 NAEP assessments for geography continue to demonstrate that nationally, students with disabilities, including those students that were tested using accommodations, scored significantly lower than their typically developing peers. More significant is the increasing percentage of students with disabilities who tested with and without accommodations that are scoring below the Basic level. Fifty-five percent of grade 12 students with disabilities tested are not demonstrating the minimum geographic skills and knowledge required to meet the Basic level as they prepare for the transition to adulthood and independence. The results of the 2010 NAEP scores for students with disabilities on the geography exam are displayed in Table 4.

Table 4

NAEP 2010 Geography Scores Students with Disabilities

Students with Disabilities	Percentage below Basic	Percentage at or above Basic	Percentage at or above Proficient	Percentage at Advanced
Grade 4	37	56	7	0
Grade 8	46	45	8	1
Grade 12	55	39	6	0

NAEP Assessments and the Exclusion of Students with Disabilities in New Jersey

While the 2010 NAEP scores for students with disabilities from New Jersey mimic the national scores, the exclusion rate of students with disabilities in New Jersey is the more impactful data. Reiterating previously introduced data, 42% of New Jersey students with disabilities, primarily students educated in separate special education classrooms, were summarily excluded from the NAEP geography assessment at the district level (T. McKinley, personal communication, December 13, 2013).

This exclusion provides educators and researchers with no information, not even anecdotal information from accompanying surveys, on the progress many students with disabilities, primarily those educated in separate special education classrooms, may have made towards the geography standards.

Education Reform The 21st Century and Beyond:

A Vision for the Future

Geography for Life: National Revisions Project.

Since the publication of the first edition of *Geography for Life: National Geography Standards* in 1994, GENIP's primary focus has been to advocate for the use of standards-based geography instruction for every student (Geographic Education National Implementation Project, 1989). In 2012, GENIP published a 2nd Edition of the National Geography Standards, which added three new components of geo-literacy: geographic perspective; geographic knowledge; and geographic skills (Heffron & Downs, 2012). These new components brought a shift in focus, bringing to light the changing tools used in geography in the 21st century and a focus on higher-order thinking skills.

The importance of teaching geographic perspective highlighted the need to help

students use their analytic skills, taking into consideration the spatial and physical constructs of a place or event, while understanding the historical, political and cultural influences that have impacted it. It brings a deeper understanding to such topics as why all centers of population exist in a precise place, and what those reasons may be.

The geographic knowledge students' need in the 21st century has also changed. According to Golledge (2002), "it has evolved from phenomenal (declarative) to intellectual (primed by cognitive demands) (p. 1). Historically, geography knowledge has been declarative, focusing on the collection and development of an inventory of facts about the physical earth and human settlements. As the discipline changed in the 20th century, more intellectual knowledge was sought understanding the "why" and "how" events and people changed, in addition to understanding the "what" and "where" (Golledge, 2002).

The basics skills every student needs to be geographically literate consists of five different sets of skills adapted from the Guidelines for Geographic Education: Elementary and Secondary Schools, which were developed by the Joint Committee on Geographic Education by the Association of American Geographers and the National Council for Geographic Education. The five skill sets are as follows: asking geographic questions; acquiring geographic information; organizing geographic information; analyzing geographic information; and answering geographic questions (National Geographic, n.d.). With the inclusion in this new edition GENIP sought to highlight the ongoing technological advancements of the times, and how students would acquire these new skills using new tools. Geographic technologies such as GIS (Geographic Information Systems), GPS (Global Positioning System), and satellite images have

changed the way teachers teach, and the scope and depth of student learning. This change in focus is also ongoing as the skills needed are expected to continue changing as the technology changes (National Geographic News, 2001).

This second edition *Geography for Life: National Geography Standards* served to highlight GENIP's position as the leader in developing the collaborative agenda for all geography education initiatives across several of the leading geography professional associations. In developing that agenda, GENIP sought to focus the field and lead them into the next century of providing high quality geography education with new tools and new areas of inquiry. With that in mind, GENIP's agenda for the field is divided into five key areas and priorities:

> 1. The dissemination and implementation of the content, skills, and perspectives of the National Geography Standards in both formal and informal education settings;
>
> 2. The use of geographic tools and technology (computer-based geographic information systems, remote sensing, spatial data available on CD-ROMs and the Internet) in education;
>
> 3. The development of effective materials and programs in pre-service and in-service education;
>
> 4. The development of partnerships with other stakeholder organizations; and
>
> 5. Public advocacy for geography education. (Geographic Education National Implementation Project, 1989, p.1)

The Road Map for 21st Century Geography Education Project

Expanding on the goals outlined in the second edition of *Geography for Life:*

National Geography Standards, the National Science Foundation (NSF) funded The Road Map for 21st Century Geography Education Project in 2010. This Road Map Project gathered a group of geographers from the four national professional associations: National Geographic Society (NGS), the Association of American Geographers (AAG) the American Geographical Society (AGS), and the National Council for Geographic Education (NCGE) with the intent to outline a plan for developing guidelines and to determine the priorities for improving geography education in primary and secondary school curriculums (Bednarz, et.al, 2013; Edelson, Shavelson, & Wertheim, 2013; Schell, Roth & Mohan, 2013).

The Road Map Project is organized around four elements that were identified as fundamental to the improvement of geography education. Currently, the project focuses on assessment, instructional materials and professional development, and research in geography education (Bednarz, et.al, 2013; Schell, et.al, 2013). The next phase of the project will focus on establishing public support for geography education (Bednarz, et.al, 2013)

The goal of the Road Map Project is to gather information from earlier reform activities in an effort to learn from those experiences in order to establish a structure that will identify what students must accomplish in order to be considered proficient in geography (Bednarz, et.al, 2013; Edelson, et.al, 2013; Schell, et.al, 2013).

Federal Legislation on Geography Education

The Teaching Geography Is Fundamental Act (TGIF) was introduced to the 113th Congress in February 2013 as Senate Bill 370 and House Resolution 822. This bipartisan piece of legislation seeks to provide funding to advance geography education within K-12

education (Speak up for Geography, n.d.; Civic Impulse, n.d.). The act, if passed, will promote geographic literacy by authorizing federal grants to fund the efforts of institutes of higher education and nonprofit organizations to improve the teaching of geography in schools (Speak up for Geography, n.d.; Civic Impulse, n.d.). The bill authorizes the appropriation of 15 million dollars per year for the next five years (Speak up for Geography, n.d.; Civic Impulse, n.d.).

This piece of legislation was previously introduced in the 109th, 110th, 111th, and 112th Congresses, and it has notably never moved past committee. Current expectations are not hopeful to move past committee during this Congress (Speak up for Geography, n.d.; Civic Impulse, n.d.).

This federal legislation and the accompanying appropriation of federal funds to support research and education could fundamentally change the trajectory of geography education in this country. This urgent need was expressed in the Executive Summary of the Instructional Materials and Professional Development Report from the Road Map for 21st Century Geography Education Project and states eloquently:

> Without explicit intervention and a dedicated focus on geographic literacy by educators, curriculum developers, and policy makers, U.S. children will be unable to thrive in the global marketplace, unlikely to connect with and care for their natural environment, and unsure about how to relate to people from other parts of the world. (Schell, et.al, 2013, p 7)

Changing Outcomes for Students with Disabilities

Research indicates that the lived experiences of young adults with disabilities include many barriers to community participation (Rosetti & Henderson, 2013). These

students suffer more academic and social difficulties; they have lower levels of self-esteem, and experience more social isolation than their typically developing peers (Rosetti & Henderson, 2013). In addition, the right to self-determine a wide range of life choices may be restricted for many people with significant disabilities (Rosetti & Henderson, 2013; Lang, 2001).

It is the thought of many that it is not a person's disability itself that builds the barriers to inclusion and participation, but rather it is society's response to the disability (Lang, 2001; Pothier & Devlin, 2006). An individual with a significant disability may experience more difficulty in learning certain skills, but whether they achieve mastery of these skills may depend more on the social context of schools than on the disabling condition. It is necessary the educators be aware of how information is provided, and what support systems are available inside the classroom and outside in the community to promote participation rather than to simply accept the lower standard commonly associated with the level of impairment (Pothier & Devlin, 2006). These supports and resources will enable individuals with disabilities to be productive and to contribute to society rather than to remain passively dependent upon it (Lang, 2001; Pothier & Devlin, 2006).

To enable individuals with disabilities to have a voice in their future, it is important to identify the prerequisite skills and to establish what we can do as educators in preparing students for the transition into adulthood. Cronin and Patton (1993) framed the conversation around the skills within six different domains that independent adults have within their daily lives. Those domains include: employment/education; home and family; leisure pursuits; personal responsibilities and relationships; community

involvement; and physical/emotional health.

The Role of Geography Education

The question as to why geography skills and knowledge are important for students with disabilities remains. Geography education has the potential to provide a significant foundation of the skills and knowledge individuals with disabilities will need within many of those domains. Geography education promotes the development of both reasoning and inquiry skills by generating questions and using an inquiry-based approach to explore the answers (Bliss, 2008). These skills are essential for the development of independence in both work and school. Geography education can improve home and family life by aiding in the development of interpersonal skills and by providing a broad perspective on different issues, thereby, modeling and encouraging respect and empathy for others (Tudball & Forsyth, 2009; Bliss, 2008). Through studies of space and place, geography education provides the foundation for civics and citizenship. Students will develop an understanding of both the rights they have as citizens and the responsibilities that accompany those rights (Tudball & Forsyth, 2009; Cranby & Matthews, 2004; Bliss, 2008). Through the study of geography students are taught the implications of their actions and the consequences that will impact them both locally and globally.

How Geography Education can Support The Transition to Adulthood. The mandate within *IDEA* Part D to transition students with disabilities into independent, participating members of society is clearly linked to the same intent of *NCLB*, which mandates that all students should be prepared for college, career and lifelong learning (Ushomirsky, et.al, 2011; Heise, 1994). One integral component missing in these goals is the need for the development of geographic skills and knowledge, which are essential to

the empowerment of individuals with disabilities if they are to increase their capability to participate in society

Sense of Place = A Sense of Self

For individuals with disabilities, developing a sense of place within their environment is linked to their sense of self (Reeve, 2002; Stromso, 2008). Both physical barriers and social exclusion within a given place form a person's sense of place. Many places have social and spatial barriers that serve to delineate who belongs in that space and who is excluded from participation in that space (Stromso, 2008; McDowell, 1999). Some individuals with disabilities will internalize the barriers that exclude them and remain compliant while others will challenge the barriers for the sake of physical and sociological change (Reeve, 2002; Stromso, 2008).

Participation in different spaces first requires access to those spaces, but access does not necessarily imply participation (Cornwall, 2004; McDowell, 1999). Individuals with disabilities require certain abilities in order to be able to participate. According to Stromso (2008), "a set of capabilities represents opportunities and the freedom to lead different types of life, and include various forms of participation in society. Hence, an individual that has limited opportunities to participation can be identified as capability poor" (p.15).

Burchhardt (2004) defines capability as how an individual with disabilities functions in their environment, combining what an individual could achieve as well as what the individual is actually achieving. Individuals with disabilities are in many cases, capability poor, but empowering a person to increase their abilities can present the freedom and opportunity to pursue a new plan for their own lives instead of conforming

to a pre-defined destiny determined by society (Burchhardt, 2004; Sen, 1999; Stromso, 2008).

The Role of Empowerment

The idea of empowerment is multifaceted and the term lacks a clear universal definition (Stromso, 2008). It can be interpreted as a process, a product, or an approach; but in order to understand empowerment it is necessary to understand power. Rowlands (2005) describes three different parts of the empowerment triad power; first, power can be interpreted as the *power over something or someone*, as a source of domination. Individuals with disabilities have historically lacked any access to this interpretation of power (Rowlands, 1995; Stromso, 2008). This absence of power has resulted in what Rowlands (1995) identifies as internalized oppression, which leads to submission and compliance to those who hold the power.

The second component of Rowlands' power triad is the power to is the *power to*, specifically the ability to inspire others and boost the morale of those within a group without dominating all members of the group (Rowlands, 1995). This part of the power triad recognizes that when groups collaborate to find solutions to common problems, individuals are then empowered to express their needs to others and therein become active decision makers in their own lives.

The third and last component of the triad is *power from within*, wherein empowerment is linked to the development of a sense of self and is marked by self-determination skills. From this develops the ability to negotiate and influence the nature of different relationships individuals with disabilities have within society, and the decisions that are made within those relationships. Finally, there is the collective ideal of

working together to help individual with disabilities to achieve what they could not achieve alone (Rowlands, 1995; Stromso, 2008).

The Role of Society in Empowerment

As introduced in Chapter 1, Critical Disability Theory (CDT) supports the position that no impairment is by itself, disabling, but that the handicapping situation is introduced when society fails to accommodate for individual differences that may limit an individual's access to and participation in society (Lang, 2001; Pothier & Devlin, 2006). This suggests that the most debilitating outcome of a disability is not so much the disability itself, but rather how the deficit determines the ways in which the individual interacts and participates in activities within an environment.

Lang (2001) theorizes that CDT provides a conceptual framework for understanding the relationship between a person's impairment, their environment and society, and is based on the following principles: disability is a socially constructed paradigm and is not the inevitable result of impairment; disability must be understood as a complex relationship between impairment and the social environment, and then the effect that both have on an individual; and finally, the hardships experienced by people with disabilities are caused by both the barriers in the physical environment, and the attitudinal barriers created by a society that fails to meet the needs of people that do not conform to its standard of normalcy.

I analyzed if there are any relationships between the perceptions of the teachers regarding the need for geography education and the extent to which students with disabilities who are currently educated in separate special education classrooms have access to, participate in, and progress towards national geography standards and found

statistically significant results that will impact students with disabilities and society as these individuals transition into adult life.

Conclusion

As stated in Chapter 1, there are continuing concerns regarding the access to general education curriculum, the participation in high quality education, and identifying and tracking the progress towards the standards for students educated in separate special education classrooms. These ongoing concerns are the impetus for this study.

The belief that all students have access to the same set of skills and content knowledge is not a foregone conclusion. As Jean Wong (2010) points out, "labels, which in essence name students' inabilities, offer little guidance for educators, in fact, they may influence teachers to unintentionally or inadvertently set limits on the learning opportunities for these students" (p.13).

According to Shapiro (1999) students with disabilities who are educated in separate settings will not learn how to function in a non-disabled world. He argues that separate special education classrooms and programs do not provide students with disabilities the opportunities to develop the skills, attitudes and values necessary to thrive with others and to become interdependent members of society. Other critics of separate schools for students with disabilities argue that, "special schools educate disabled people into a lifetime of dependence/marginalization, by not providing disabled people with the skills and qualifications necessary to compete effectively in the labor market" (Holt, 2003, p. 119).

The characteristics we typically associate with quality education must continue to change and evolve based on new understandings of how children learn, the fluctuating

contexts in which children are educated, and new research that sheds light on effective classroom practices. To support this transformation, educational reform agendas have continuously focused on reducing educational inequities by holding teachers accountable for providing a high quality education for every student (Gamoran, 2011).

There is growing research that supports the fact that these new standards are resulting in higher expectations from teachers and parents and, therefore, higher levels of achievement from students with disabilities (Brophy, 1983; Dusek, & Joseph, 1983; McGrew& Evans, 2004). This research provides conclusions that students with moderate to severe intellectual disabilities are capable of learning higher-level academic content (Courtade, Spooner, & Browder, 2007; Jimenez, Browder, & Courtade, 2008).

Many individuals with disabilities have become accustomed to having decisions made about their everyday lives being made by others (Brinckerhoff, 1993). One way to influence society's views regarding individuals with disabilities is to teach these individuals self-determination skills (Johnson, 1999). Self-determination as defined by Gould (1986) encompasses problem solving, learning to advocate for your own wants and needs, learning how to obtain the information needed in order to make informed decisions, that will impact your own life, and knowing your rights and responsibilities as a citizen.

Yet as far as we have come since the 1960s we still have strides to make. According to research completed by Mason, Field and Sawilowsky (2004), most special education teachers believed that self-determination skills were important for their students with disabilities to have, however, only 8% were satisfied with the approach they personally took to teach self-determination. Teachers reported that they did not

provide instruction in these skills because they lacked the knowledge on how to teach them (Mason, et al. 2004). Understanding the relationship between the teacher's lack of knowledge and their subsequent lack of instruction is significant when exploring the lack emphasis on teaching geography within current teacher preparation programs that prepare both elementary and secondary pre-service teachers (Schell, et.al, 2013).

Without understanding what is happening at the classroom level, educational leaders cannot make fundamental and sustainable organizational change. Changes to the skills and knowledge content teachers must impart to students with disabilities may conflict with a teacher's long held beliefs and practices concerning the necessity for academics for this population. Second order changes of this nature may threaten a teacher's overall sense of competence (Fullan, 2005). The fear of incompetence when teaching geography may lead to resistance or avoidance of the subject. Without learning new ways to approach teaching students with disabilities self-determination skills, and without believing those skills are essential for independence, the sustainability of this kind of change is in jeopardy. Without belief, skills and experience sustained change cannot be expected (Fullan, 2005).

This study served to provide data regarding access to geographic materials, participation in geographic instruction and progress towards the geography standards for students with disabilities educated in separate special education classrooms in New Jersey. This data identified if geography skills and content knowledge are currently taught within the curriculum of the other core academic subjects, and will provide guidance to the field regarding possible integration of geography skills and content knowledge into the routines and activities of separate special education classrooms across

the state.

Chapter 3

Methodology

The purpose of this research is to examine if there is a relationship between program placement and access to geographic books and materials; participation in direct instruction and activities in geography, and makes progress towards national geography standards.

The five purposes of chapter three are to (1) describe the research methodology (2) explain the selection of participants, (3) describe the procedure used in designing the survey instrument and collecting the data via a web-based provider, (4) provide an explanation of the statistical procedures used to analyze the data, and (5) identify ethical considerations and limitations.

Research Methodology

Both descriptive and inferential quantitative research methodologies were used in this research to collect statistical data on the following four research questions.

Research Question 1

Is there is a statistically significant relationship between program placement and the student's access to books and materials on the national geography standards?

Research Question 2

Is there is a statistically significant relationship between program placement and the students' participation in instruction linked to the national geography standards?

Research Question 3

Is there is a statistically significant relationship between program placement and progress made towards the national geography standards?

Research Question 4

To what extent do teachers believe these geographic skills and this content knowledge are important for individuals with disabilities in order to self-advocate later in life?

Descriptive methods helped describe, show or encapsulate statistics in a meaningful way, allowing any patterns to emerge from the data (Frankfort-Nachmias & Leon-Guerrero, 2006). Using statistics in a descriptive manner allowed the researcher to describe the experiences of the participants in the study. Descriptive research adds an important component in educational research due to the nature of the human interactions within educational environments; educational research cannot be effectively done in controlled laboratory settings (Borg & Gall, 1989).

The make-up of the sample accurately represented the population of special education teachers in separate special education settings and permitted the researcher to make inferences from the data (Frankfort-Nachmias & Leon-Guerrero, 2006).

The most common methods for collecting both descriptive and inferential data are observations and surveys (Borg & Gall, 1989). Using surveys as a tool within basic social science research is widely accepted for collecting and analyzing quantitative data from selected populations (Rossi, Wright, and Anderson, 1983). Surveys that use open-ended questions allow for a variety of answers, but are difficult to analyze statistically. Closed-ended questions are easier to analyze statistically, but they limit participant responses. Likert-type scales are preferred by many researchers due to the expanded responses offered to participants and the ease of statistical analysis (Jackson, 2009).

For this study, the researcher chose to design a Likert-type survey instrument to gather data from a large group of teachers regarding the extent to which students with disabilities who are taught in separate special education classrooms in public and private schools have access to, participate in, and make progress towards the national geography standards. The use of a survey allowed for the following: (1) efficiency of time for the researcher and the participants in the study; (2) cost effectiveness; (3) collection of data from a large sample; and (4) ease of tabulating data (Couper, 2000).

Setting

The setting of my study was New Jersey publicly funded schools that serve students with disabilities in separate special education classrooms and programs. New Jersey is a densely populated state and was chosen for its wide range of cultures, making it one of the most diverse states in the nation. New Jersey was also chosen due to the access the researcher has with teachers and district level administrators in the state. Focusing on separate special education classrooms and programs provided for a representative cross sample of students with significant disabilities.

Participants

A link to the e-survey was sent by email to the 329 special education teachers in New Jersey who are current members of the New Jersey Council for Exceptional Children, the state chapter of the national professional organization for special education professionals. A link to the survey was also posted on social media via the Facebook page for the New Jersey Council for Exceptional Children.

This researcher used a stratified random sampling method to divide the census of New Jersey special education teachers into two smaller strata (Agresti & Finlay, 2008).

The smaller strata were identified using two important categories of program placement that were relevant to the research questions: teachers working in schools with the presence of typical peers, and teachers working in schools without the presence of typical peers. Each stratum is mutually exclusive; therefore, every teacher in the population was assigned to only one (Agresti & Finlay, 2008). Each stratum was relevant to my study. Strata A consisted of schools with the presence of typical peers, offered a wide array of programs influenced by the access to the general education curriculum and included inclusive opportunities (Esteves & Rao, 2008). According to the New Jersey Public Schools Fact Sheet, there are currently 690 public school districts and active charter schools in New Jersey eligible to be included in this stratum (New Jersey Department of Education, 2013b).

Strata B were made up of schools for children with disabilities that do not educate typically developing peers. These specialized; separate special education settings provide an education to many students with disabilities with varying degrees of disability categories and developmental levels (Association of Schools and Agencies for the Handicapped, n.d.). There are currently 174 districts in New Jersey eligible to be included in this stratum (New Jersey Department of Education, 2013a). The goal of this methodology was to have as much homogeneity in each group as possible so that all subgroups were fully represented in the sample, proportionally resembling the entire population (Agresti & Finlay, 2008). With a minimum number of responses set for 100, the goal was to collect 75 responses from strata A and 25 responses from strata B to proportionally represent the population.

Survey Design

The survey was designed to illicit information from the teachers about geographic content knowledge and geographic skills. In order to ensure that the survey was a reasonable length yet manageable for the participants, the study consisted of twenty questions that were sorted into broad thematic categories. The first ten questions were related to content knowledge and covered the essential elements identified in the national geography standards. The second ten questions were related to the geography skills identified in the national geography standards that provide the necessary techniques and tools individuals need in order to think geographically. The questions were written to assess various intellectual skills, including the abilities to identify, describe, construct, analyze, explain and compare. Since the standards are based on scaffolds across broad groups of grade levels, the questions were written to reflect the lowest scaffold, or the basic information of each content knowledge or skill.

Validity

A peer review was used to establish questionnaire content validity and clarity of instructions. Two doctoral level special education professors reviewed the study and added suggestions. The first suggestion regarded phrasing of the instructions. The second suggestion would remove the demographic question regarding school location (urban, suburban, rural), as the reviewers interpreted that as an abstract concept. In addition, the peer review included two practicing special education teachers who reflect my survey population. I used the cognitive interview technique to have the teachers "think aloud" as they answered the question I read aloud (Dillman, 2007). I then probed with questions to discern how clear or unclear the line of questioning was. The final survey was revised to

reflect the changes of the peer reviewers before it was disseminated to the participants.

Data Collection

Data Collection Procedure

The e-Survey Creator web host created a direct link to the survey, which was emailed to the volunteer from the New Jersey Council for Exceptional Children Executive Board who was ineligible to take the survey. An email with the link to the survey went to the 329 teachers who were current members of the New Jersey Council for Exceptional Children, the state chapter of the national professional organization for special education teachers at the time of the study. The link to the survey was also posted on the New Jersey Council for Exceptional Children's social media page on Facebook. Not all of the members of New Jersey Council for Exceptional Children would meet the eligibility perimeters of the study.

According to Dillman, Smyth and Christian (2009), the optimal timing sequence for follow-up invitations to participate in a web-based survey has not yet been established. Due to the nature of the mode of delivery, the pace of a web-based survey is quicker than the pace of a mail based survey. Emails may be quickly dismissed and forgotten, whereas a physical piece of mail may remain in sight as a reminder, so email reminders may be spaced closer together. The common rule of thumb is to use the comparison of how often a person would communicate with a business acquaintance that is not known very well (Dillman, et al., 2009). For this survey, the volunteer from the New Jersey Council for Exceptional Children Executive Board sent out reminder email message on day 8 and day 15. Data collection continued for a total of three weeks, after the minimum 75 surveys from had been collected from strata A and 25 surveys had been

collected from strata B.

Data Analysis

The purpose of this research was to examine if there is a relationship between program placement and access to geographic books and materials; participation in direct instruction and activities in geography, and makes progress towards national geography standards.

All data were analyzed utilizing the Statistical Package for Social Science (SPSS). Data from the first three research questions was analyzed using multivariate analysis of variance (MANOVA) to test for patterns in the data (Tabachnick & Fidell, 1983). The independent variables (IV) analyzed were identified by their least restrictive environment (LRE) classroom placement defined as:

1. Separate special education classrooms in a school where typically developing peers are present.
2. Separate special education classrooms in a school where typically developing peers are not present.

The dependent variables (DV) to be analyzed were defined as:

1. Access to books and materials for geography instruction
2. Participation by students with disabilities in direct instruction and activities towards the national geography standards,
3. Progress made by students with disabilities towards the national geography standards

Data from the fourth research question were reported in terms of percentages.

Ethical Considerations

This research study was not designed to intentionally cause harm or risk to the participants. The nature of quantitative research provides for certain built-in ethical safeguards. The pre-planned design of the study and the procedural nature of the data analysis helped to avoid potential ethical issues that may arise in other kinds of research. The structured questions on the survey used closed-answer questions with pre-defined options. This may have help participants minimize any potential for stress, an important basic principle of research ethics (Anderson, & Kanuka, 2003). Another basic principle of research ethics is consent (Anderson & Kanuka, 2003), a process which ensures that the participants understand 1) that they are contributing to research, and 2) that they have a firm understanding of what that participation will require of them (e.g., demands, discomforts, inconveniences and risks). Other aspects of consent include the participant's understanding of the purpose of the research, the method used in the research, the possible outcome and how the data will be used in the future (Anderson, & Kanuka, 2003). Consent was obtained on the second page of the online survey. Participants were required to give consent before moving on to the survey. Research participants also had the right to withdraw their consent at any time in the research process.

Anonymity and confidentiality of both the participants and the data are also tenets of research ethics (Anderson, & Kanuka, 2003). This study used only volunteers that had not been coerced or deceived, and the researcher did not collect any data that would identify the participants. The data will be treated and stored confidentially during analysis and long-term electronic storage. The data will be made available to the research participants and to the granting university's Institutional Review Board for approval. The

aggregation of the data will go further in helping to protect the anonymity of any survey participant since the type of workplace is a variable.

Limitations

Researchers and educators who do not understand intent and limitations can possibly misuse data from descriptive research. For example, researchers cannot use the data collected to draw conclusions that show a cause and effect relationship, because that is outside the scope of the statistics collected (Borg & Gall, 1989). Some descriptive research can produce statistical information about specific phenomena that may interest policy makers and educators. The data from descriptive studies can also generate data that may be useful in developing recommendations for further research (Borg & Gall, 1989). Descriptive research data has the capability of providing information from alternative standpoints. By gathering descriptions of "what is" and comparing them to "what should be," policy makers and educators can identify areas of concern that need to be addressed (Borg & Gall, 1989).

One limitation of this study is the way that geography standards are now presented to teachers within the New Jersey Core Curriculum Content Standards for Social Studies. In 2009, the New Jersey Core Curriculum Content Standards for Social Studies changed the way in which the geography standards were represented within the Social Studies Standards document. At the time of adoption, arguments made by Social Studies educators from across New Jersey included the concern that the new standards made it difficult for teachers to find the required geography content, thus failing to provide more than a cursory study of geography into what they described as a history-based curriculum (New Jersey History Advocates & New Jersey Social Studies

Educators, 2008). If teachers have a difficult time identifying the discrete geographic skills and knowledge required throughout the grade levels, there is a concern that some standards, and, therefore, some skills and knowledge, may be overlooked. The lack of clear presentation of the state standards reduces the priority and focus of geography in schools and inhibits a comprehensive and cohesive study of the field.

The second limitation is the method used to obtain survey participants for the study. Deciding to study a large population, such as special education teachers in New Jersey, creates limitations in itself. Very often researchers are unable to survey all the individuals in the population due to real life issues like access, time and inconvenience. Additionally, the survey will rely on self-selection, where individuals choose to take part in the survey of their own accord. There may we a wide range of reasons why an individual would or would not participate in a research study: perhaps they have a strong opinion on the subject matter, maybe they are curious about the study and its finding(s), or they just may want to perform a good deed in helping out the researcher (Dillman, et al., 2009).

The third limitation of the study is the use of a survey. The survey will be both voluntary and self-reported, with participants' indication of the degree to which their current teaching practices reflect the questions provided in each section of the measurement instrument. Human nature expects that a certain number of those responding to the survey will answer in the way in which they think they ought to, which may or may not be an accurate representation reality (Wheeler, 2013).

Chapter 4

Findings

This study sought to investigate if a relationship exists between program placements and the geo-literacy skills and content knowledge (identified by the National Geographic standards) taught to students with disabilities who are educated in separate special education settings. A second purpose was to study what teachers in separate special education settings believe about geographic skills and content knowledge and their importance for individuals with disabilities in order to self-advocate later in life. This research was deemed important, because without access to a foundation of geographic knowledge and skills, the marginalization of individuals with disabilities will likely continue (Hawkesworth, 2001).

The Rowan University Institutional Review Board approved the study on May 2, 2014 and then the survey was available on the eSurvey Creator website for three weeks, from Saturday May 3, 2014 to Saturday May 24, 2014.

Participants

One hundred responses were sought, with a goal of 75 participants in strata A, (teachers from schools with typical peers present), and 25 participants from strata B, (teachers in schools without the typical peers present) as a proportionally representative sample of the population.

A link to the e-survey was sent by email to a list of special education teachers across the state of New Jersey acquired from the membership roster of the New Jersey Council for Exceptional Children, the state chapter of the national professional organization for special education professionals. A link to the survey was also posted on

social media via the Facebook page for the New Jersey Council for Exceptional Children. Follow up emails were send on day 8 and day 15. Not all of the members of New Jersey Council for Exceptional Children would meet the eligibility perimeters of the study.

One hundred and twenty four teachers participated in the e-survey during the three weeks of availability. Out of the 121 teachers who answered the question on class/school type, 90 (74.4%) teachers identified themselves as a special education teacher who is teaching students with disabilities in a school building where general education students are present (Strata A). Thirty-one (25.5%) teachers identified themselves as a special education teacher who is teaching students with disabilities in school buildings that do not have general education students present (Strata B). These segregated schools consist of both public schools, and New Jersey approved private schools for the disabled. Due to incomplete or inconsistent data, the Statistical Package for Social Science (SPSS) software eliminated 36 surveys and completed the full analysis on 88 completed surveys, with 64 (73%) in Strata A, and 24 (27%) in Strata B.

Teachers who participated in this study did so voluntary and were not coerced in any way to participate. Additionally, the participants did not benefit by participating, nor did they suffer any consequences for not participating. Participants were fully informed of the process through the alternate consent, which was included on the second page of the online survey. Participants were required to consent before moving on to the survey. Since this survey is about teacher practices, and no identifying information was obtained from the survey participants, their answers did not adversely affect the rights or welfare of the subjects.

Data generated from the online survey included basic demographic data about the teachers, including gender, age, current level of education, years of teaching experience, and state certification received. Further demographic information included the obtainment of information on school and class type, which was used to identify the independent variable of least restrictive environment, is listed in Table 5.

Table 5

Survey participants

	Strata A	Strata B
Gender		
Female	78	26
Male	12	6
Age		
20-29	26	11
30-39	27	9
40-49	20	3
50-59	13	5
60+	4	2
Degree		
Bachelors degree	38	19
Masters degree	13	8
Masters degree plus additional graduate credits	38	3
Doctoral degree	1	1
NJ Teacher Certification		
NJ Permanent Teacher of the Handicapped	43	10
NJ Provisional Teacher of Students with Disabilities	21	13
NJ Standard Teacher of Students with Disabilities	21	7
Student academic levels in the class		
Mildly disabled	31	1
Moderately disabled	25	10
Significantly disabled	33	19
Grade levels		
Elementary	50	20
Middle	21	7
High school	18	4
Content Area Taught		
All subjects	61	21
Reading / Language Arts only	14	3
Math only	3	2
Science only	5	1
Social studies only	6	2
Responsibility to Social Studies content		
Themselves	69	23
Another teacher	29	7

Data Analysis

The first three research questions were analyzed using a MANOVA (multivariate analysis of variance) to examine if there was a relationship between the classroom placement and the access to geographic books and materials, participation in direct instruction and activities in geography and progress made towards the geography standards for students with disabilities educated outside of the general education classroom.

The MANOVA generated a probability value (p-value), which was then used to determine if the null hypothesis could be rejected (Tabachnick & Fidell, 1983). The p-value is considered a mathematical measure of statistical significance, so when $p<0.05$ we can determine that the null hypothesis was rejected and the results were identified as statistically significant (Tabachnick & Fidell, 1983). A p-value was obtained for every question on the survey. The mean and standard deviation were also obtained for every question. The statistical mean provided the central tendency for each question studied, while the standard deviations offered an available definition to explain potential variations for the distribution of answers in each question. The results are as follows:

Research Question 1

Research question 1 asked if there is a statistically significant relationship between program placement and the student's access to books and materials on the national geography standards. The choices on the Likert-type scale for these question included: much less (1), less (2), same (3), more (4) and much more (5).

As shown in Table 6, the results for research question 1 found that teachers report that there is a statistically significant relationship that program placement has on access

to books and materials connected to each of the topics presented on the study that are aligned to the national geography standards. Students taught in separate special education classrooms in schools where typically developing peers were present consistently had more access to books and materials on geography skills and knowledge, than those students taught in separate special education classrooms in schools where typically developing peers were not present.

Table 6

MANOVA, Report of Items that were Statistically Significant- Research Question 1

	N	df	Mean Square	F	Sig
Construct maps and graphs to display geographic data.	88	1	9.413	15.031	0.000
Identify locations in their community from memory using mental maps	88	1	7.163	9.979	0.002
Describe and compare clothing, housing and transportation at different latitudes	88	1	8.250	13.810	0.000
Identify and describe distinguishing characteristics of different regions	88	1	6.932	9.683	0.003
Describe how the Earth's position relative to the Sun affects conditions on Earth	88	1	6.371	8.617	0.004
Compare characteristics of different ecosystems	88	1	4.008	5.167	0.026
Describe how people and places change as a result of migration.	88	1	6.371	8.970	0.004
Describe why people and countries trade goods and services	88	1	6.593	8.621	0.004
Identify and describe how human activities impact the environment.	88	1	5.220	6.727	0.011
Identify the ways in which different types of resources can be conserved, reused, and recycled	88	1	2.807	4.105	0.046
Answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?)	88	1	4.926	6.826	0.011
Explain the importance of the features or location of places	88	1	6.371	9.274	0.003
Describe the characteristics of a place using observed and collected data	88	1	5.834	8.029	0.006
Use digital globes and maps as sources of different types of geographic information.	88	1	6.593	9.730	0.002
Construct maps using symbols to represent the locations of student-collected data	88	1	9.547	13.054	0.001
Construct digital and paper maps, graphs, tables, and charts to display geographic information	88	1	4.364	5.992	0.016
Analyze various maps to identify relationships or similarities between countries or regions based on the data represented.	88	1	4.095	6.405	0.013
Analyze the relationships and patterns between political boundary lines and features on maps to describe possible trends.	88	1	3.184	5.080	0.027
Construct a digital or paper map that answers a geographic question; describing the data they used to inform the answer.	88	1	3.421	5.505	0.021
Use various options for presenting answers to a geographic question (i.e. multimedia, graphs, maps)	88	1	3.667	4.452	9.038

It is important to note that the results do identify that all students with disabilities had less overall access to geography books and materials than their typically developing peers in the general education classes did. Table 7 highlights that teachers acknowledged the highest mean value that identified students had access to 'less' books and materials (2.23) to 'much less' books and materials (1.72) for geographic skills and content knowledge compared to their typically developing peers.

Table 7

Means and Standards Deviations for Research Question 1

Access to books and materials for Geographic Skills and Knowledge	Program Placement	Mean	SD	N
Construct maps and graphs to display geographic data	With peers present	2.11	.838	64
	Without peers present	1.38	.647	24
Identify locations in their community from memory using mental maps.	With peers present	2.14	.870	64
	Without peers present	1.50	.780	24
Describe and compare clothing, housing and transportation at different latitudes	With peers present	2.06	.833	64
	Without peers present	1.38	.576	24
Identify and describe distinguishing characteristics of different regions of Earth.	With peers present	1.92	.948	64
	Without peers present	1.29	.464	24
Describe how the Earth's position relative to the Sun affects conditions on Earth.	With peers present	2.19	.889	64
	Without peers present	1.87	.442	24
Compare characteristics of different ecosystems.	With peers present	2.19	.889	64
	Without peers present	1.71	.885	24
Describe how people and places change as a result of migration.	With peers present	1.94	.924	64
	Without peers present	1.33	.565	24
Describe why people and countries trade goods and services.	With peers present	2.03	.942	64
	Without peers present	1.42	.654	24
Identify and describe how human activities impact the environment.	With peers present	2.17	.883	64
	Without peers present	1.63	.875	24
Identify the ways in which different types of resources can be conserved, reused, and recycled.	With peers present	2.23	.831	64
	Without peers present	1.83	.816	24
Answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?).	With peers present	2.16	.877	64
	Without peers present	1.62	.770	24
Explain the importance of the features or location of places.	With peers present	1.94	.906	64
	Without peers present	1.33	.565	24
Describe the characteristics of a place using observed and collected data	With peers present	1.95	.916	64
	Without peers present	1.38	.647	24
Use digital globes and maps as sources of different types of geographic information	With peers present	1.78	.917	64
	Without peers present	1.17	.659	24
Construct maps using symbols to represent the locations of student-collected data	With peers present	2.03	.942	64
	Without peers present	1.29	.550	24
Construct digital and paper maps, graphs, tables, and charts to display geographic information.	With peers present	1.95	1.090	64
	Without peers present	1.38	.647	24
Analyze various maps to identify relationships or similarities between countries or regions based on the data represented.	With peers present	1.73	.877	64
	Without peers present	1.25	.532	24
Analyze the relationships and patterns between political boundary lines and features on maps to describe possible trends.	With peers present	1.72	.863	64
	Without peers present	1.29	.550	24
Construct a digital or paper map that answers a geographic question; describing the data they used to inform the answer.	With peers present	1.73	.859	64
	Without peers present	1.29	.550	24
Use various options for presenting answers to a geographic question (i.e.. multimedia, graphs, maps)	With peers present	1.88	.951	64
	Without peers present	1.42	.776	24

Research Question 2

Research question 2 asked if there is a statistically significant relationship between program placement and student participation in instruction linked to the national geography standards. The choices on the Likert-type scale for these question included: never (1), rarely (2), sometimes (3), often (4), and frequently (5).

The results for research question 2 found that teachers reported that in 85% of the topics presented on the survey there was no statistically significant effect that program placement has on the students' participation in instruction in these topics. In those 17 out of 20 areas listed in the survey, teachers reported that students in segregated classrooms in schools with and without typical peers were equally not participating in direct instruction in the geographic content listed on the survey. There were three exceptions in the area of participation. The results reported that for these three areas (15% of the survey) there was a statistically significant effect that program placement had on the results, with teachers in Strata A reporting more participation in activities related to those specific geographic content knowledge and skills than teachers in Strata B. The results that were statistically significant are listed in Table 8.

Table 8

MANOVA, Report of Items that were Statistically Significant- Research Question 2

Participation in direct instruction in geography skills and knowledge	N	df	Mean square	F	Sig.
Describe why people and countries trade goods and services.	88	1	4.184	4.393	.039
Use digital globes and maps as sources of different types of geographic information.	88	1	3.584	4.903	.029
Construct digital and paper maps, graphs, tables, and charts to display geographic information.	88	1	3.502	7.455	.008

Again, regarding this question it is important to note that the results recognize that teachers reported that most special education students, whether taught in separate special education classrooms in schools where typically developing peers were present, or taught in separate special education classrooms in schools were typically developing peers were not present, consistently participated in direct instruction and activities much less frequently than their typically developing peers in the general education classes did. Teachers reported that students with disabilities participated 'rarely' (2.98) to 'never' (1.38) in activities related to geography skills and knowledge compared what the teachers believed their typically developing peers did. The results are displayed in Table 9.

Table 9

Means and Standards Deviations for Research Question 2

Participation in instruction in Geographic Skills and Knowledge	Program Placement	Mean	SD	N
Construct maps and graphs to display geographic data	With peers present	2.33	1.128	64
	Without peers present	2.04	1.233	24
Identify locations in their community from memory using mental maps.	With peers present	2.75	1.168	64
	Without peers present	2.38	1.135	24
Describe and compare clothing, housing and transportation at different latitudes.	With peers present	2.20	1.072	64
	Without peers present	1.83	1.007	24
Identify and describe distinguishing characteristics of different regions.	With peers present	2.00	1.069	64
	Without peers present	1.71	1.042	24
Describe how the Earth's position relative to the Sun affects conditions on Earth.	With peers present	2.17	1.092	64
	Without peers present	1.87	1.035	24
Compare characteristics of different ecosystems	With peers present	2.13	1.062	64
	Without peers present	2.08	1.176	24
Describe how people and places change as a result of migration	With peers present	1.95	1.045	64
	Without peers present	1.50	.780	24
Describe why people and countries trade goods and services	With peers present	2.03	1.054	64
	Without peers present	1.54	.721	24
Identify and describe how human activities impact the environment	With peers present	2.48	1.168	64
	Without peers present	2.13	1.116	24
Identify the ways in which different type of resources can be conserved, reused, and recycled	With peers present	2.98	1.228	64
	Without peers present	2.83	1.167	24
Answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?).	With peers present	2.66	1.072	64
	Without peers present	2.21	1.021	24
Explain the importance of the features or location of place	With peers present	1.89	.978	64
	Without peers present	1.50	.722	24
Describe the characteristics of a place using observed and collected data.	With peers present	1.95	1.030	64
	Without peers present	1.67	.917	24
Use digital globes and maps as sources of different types of geographic information.	With peers present	1.95	.917	64
	Without peers present	1.50	.659	24
Construct maps using symbols to represent the locations of student-collected data	With peers present	1.97	1.023	64
	Without peers present	1.62	.770	24
Construct digital and paper maps, graphs tables, and charts to display geographic information	With peers present	1.95	1.090	64
	Without peers present	1.38	.647	24
Analyze various maps to identify relationships or similarities between countries or regions based on the data represented	With peers present	1.64	.842	64
	Without peers present	1.38	.647	24
Construct a digital or paper map that answers a geographic question describing the data they used to in for the answer.	With peers present	1.53	.734	64
	Without peers present	1.46	.658	24
Use various options for presenting answers to a geographic question (i.e. multimedia, graphs, maps).	With peers present	1.77	.988	64
	Without peers present	1.54	.833	24

Research Question 3

Research question 3 asked if there is a statistically significant relationship between program placement and progress made towards the national geography standards. The choices on the Likert-type scale for these question included: much weaker (1), weaker (2), same (3), stronger (4) and much stronger (5).

The results for research question 3 found that teachers reporting that program placement has a statistically significant effect on 80% of the topics listed in the survey regarding the progress that students with disabilities made towards mastering the content knowledge or skills as compared to their typically developing same age peers. In five of the twenty topics listed in the survey, there was no statistical significance found. Those five areas were: identifying and describing how human activities impact the environment; identifying the ways in which different types of resources can be conserved, reused, and recycled; analyzing the relationships and patterns between political boundary lines and features on maps to describe possible trends; and finally constructing a digital or paper map that answers a geographic question; describing the data they used to inform the answer.

Table 10 displays the statistically significant results that show that teachers reported that students taught in separate special education classrooms in schools where typically developing peers were present, consistently made more progress mastering the content knowledge or skills as compared to their same age peer than reported by teachers teaching students in separate special education classrooms in schools were typically developing peers were not present.

Table 10

MANOVA, Report of Items that were Statistically Significant- Research Question 3

Questions on progress made towards the national geography standards	N	df	Mean square	F	Sig.
Construct maps and graphs to display geographic data.	88	1	3.835	15.031	.000
Identify locations in their community from memory using mental maps.	88	1	2.663	5.857	.018
Describe and compare clothing, housing and transportation at different latitudes.	88	1	3.341	6.065	.016
Identify and describe distinguishing characteristics of different regions.	88	1	4.095	7.829	.006
Describe how the Earth's position relative to the Sun affects conditions on Earth.	88	1	4.273	8.269	.005
Compare characteristics of different ecosystems.	88	1	5.121	9.112	.003
Describe how people and places change as a result of migration.	88	1	3.184	6.863	.010
Describe why people and countries trade goods and services.	88	1	3.667	7.304	.008
Identify and describe how human activities impact the environment.	88	1	2.254	3.608	.061
Identify the ways in which different types of resources can be conserved, reused, and recycled.	88	1	1.705	2.555	.114
Answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?).	88	1	2.881	5.821	.018
Explain the importance of the features or location of places.	88	1	2.955	6.005	.016
Describe the characteristics of a place using observed and collected data.	88	1	2.593	5.037	.027
Use digital globes and maps as sources of different types of geographic information.	88	1	2.807	5.269	.024
Construct maps using symbols to represent the locations of student-collected data.	88	1	2.807	4.486	.037
Construct digital and paper maps, graphs, tables, and charts to display geographic information.	88	1	3.502	7.455	.008
Analyze various maps to identify relationships or similarities between countries or regions based on the data represented.	88	1	2.523	6.166	.015
Analyze the relationships and patterns between political boundary lines and features on maps to describe possible trends.	88	1	1.485	3.760	.056
Construct a digital or paper map that answers a geographic question; describing the data they used to inform the answer.	88	1	1.432	3.036	.085
Use various options for presenting answers to a geographic question (i.e.. multimedia, graphs, maps).	88	1	2.807	6.160	.015

With the results of this question we continue to see a pattern in which the results show teachers reporting that most special education students, whether they are taught in separate special education classrooms in schools where typically developing peers were present, or taught in separate special education classrooms in schools where typically developing peers were not present, made less progress towards mastering the content knowledge or skill than their teachers believed that their typically developing peers in the general education classes did. As displayed in Table 11, teachers acknowledged the mean value that identified students with disabilities in both strata were 'much weaker" with a range between a high of 1.94 and a low of 1.17 in relation to the progress made towards the geography standards compared to their typically developing peers.

Table 11

Means and Standards Deviations for Research Question 3

Questions on progress make towards the national geography standards	Program Placement	Mean	SD	N
Construct maps and graphs to display geographic data.	With peers present	1.72	.786	64
	Without peers present	1.25	.442	24
Identify locations in their community from memory using mental maps	With peers present	1.77	.707	64
	Without peers present	1.38	.576	24
Describe and compare clothing, housing and transportation at different latitudes.	With peers present	1.81	.794	64
	Without peers present	1.38	.576	24
Identify and describe distinguishing characteristics of different regions.	With peers present	1.73	.802	64
	Without peers present	1.25	.442	24
Describe how the Earth's position relative to the Sun affects conditions on Earth.	With peers present	1.83	.788	64
	Without peers present	1.33	.482	24
Compare characteristics of different ecosystems.	With peers present	1.88	.826	64
	Without peers present	1.33	.482	24
Describe how people and places change as a result of migration.	With peers present	1.72	.745	64
	Without peers present	1.29	.464	24
Describe why people and countries trade goods and services	With peers present	1.75	.777	64
	Without peers present	1.29	.464	24
Identify and describe how human activities impact the environment.	With peers present	1.86	.794	64
	Without peers present	1.50	.780	24
Identify the ways in which different types of resources can be conserved, reused, and recycled.	With peers present	1.94	.814	64
	Without peers present	1.63	.824	24
Answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?).	With peers present	1.76	.766	64
	Without peers present	1.38	.495	24
Explain the importance of the features or location of places.	With peers present	1.70	.770	64
	Without peers present	1.29	.464	24
Describe the characteristics of a place using observed and collected data.	With peers present	1.72	.766	64
	Without peers present	1.33	.565	24
Use digital globes and maps as sources of different types of geographic information.	With peers present	1.73	.782	64
	Without peers present	1.33	.565	24
Construct maps using symbols to represent the locations of student-collected data.	With peers present	1.73	.840	64
	Without peers present	1.33	.637	24
Construct digital and paper maps, graphs, tables, and charts to display geographic information.	With peers present	1.66	.768	64
	Without peers present	1.21	.415	24
Analyze various maps to identify relationships or similarities between countries or regions based on the data represented	With peers present	1.55	.711	64
	Without peers present	1.17	.381	24
Analyze the relationships and patterns between political boundary lines and features on maps to describe possible trends	With peers present	1.50	.690	64
	Without peers present	1.21	.415	24
Construct a digital or paper map that answers a geographic question; describing the data they used to inform the answer.	With peers present	1.58	.752	64
	Without peers present	1.29	.464	24
Use various options for presenting answers to a geographic question (i.e.. multimedia, graphs, maps).	With peers present	1.61	.748	64
	Without peers present	1.21	.415	24

Research Question 4

Research question 4 asked to what extent do teachers believe these geographic skills and this content knowledge are important for individuals with disabilities in order to self-advocate later in life. The choices on the Likert-type scale for these question included: not important (1), somewhat important (2), very important (3) and, essential (4). Research question 4 was reported in percentages and analyzed for patterns.

As demonstrated in Table 12, a strong percentage of teachers in Strata B (without peers present) reported that they believed that 85% (17 out of 20) of the skills and knowledge listed in the survey were 'not important' for students with disabilities to know in order to self advocate later in life. In 15% of the areas (3 out of 20): identifying locations in their community from memory using mental maps, identify the ways in which different types of resources can be conserved, reused, and recycled, and answer geographic questions, did the highest percentage of teachers in Strata B report this skill as 'very important'. There were no instances where the highest percentage of teachers in Strata B reported any skills or knowledge to be 'important' or 'essential' for students to know in order to be independent later in life.

The results for teachers from Strata A (with peers present) were more varied. In 70% (14 out of 20) of the topics presented on the survey, teachers rated the geographic skill or knowledge as 'important' for students with disabilities to know in order to self-advocate later in life. In 15% of the topics (3 out of 20), the largest percentage of teachers rated the skill or knowledge as 'not important'. In another 15% of the topics (3 out of 20), the largest percentage of teachers rated the skill or knowledge as 'very important'. This included the area, 'identifying locations in their community from memory using mental

maps', the same area reported as 'very important' to teachers in Strata B. Consistent with Strata B, there were no instances where the highest percentage of teachers in Strata A reported any of the skills or knowledge to be essential.

Table 12

Teachers' beliefs of the importance of skills in order to self-advocate later in life

How important is this skills or knowledge to be independent in the future	Program Placement	Not important	Important	Very important	Essential
Construct maps and graphs to display geographic data.	With peers present	18	53	22	6
	Without peers present	47	33	20	0
Identify locations in their community from memory using mental maps.	With peers present	14	23	37	26
	Without peers present	18	25	46	11
Describe and compare clothing, housing and transportation at different latitudes.	With peers present	29	45	23	3
	Without peers present	60	28	11	0
Identify and describe distinguishing characteristics of different regions.	With peers present	36	40	24	0
	Without peers present	57	29	14	0
Describe how the Earth's position relative to the Sun affects conditions on Earth.	With peers present	33	46	20	1
	Without peers present	46	43	18	0
Compare characteristics of different ecosystem.	With peers present	33	41	26	0
	Without peers present	50	36	14	0
Describe how people and places change as a result of migration	With peers present	36	45	16	3
	Without peers present	71	21	7	0
Describe why people and countries trade goods and services.	With peers present	35	41	21	3
	Without peers present	61	25	14	0
Identify and describe how human activities impact the environment.	With peers present	15	20	49	16
	Without peers present	33	21	31	14
Identify the ways in which different types of resources can be conserved, reused, and recycled	With peers present	9	14	46	29
	Without peers present	24	11	47	17
Answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?).	With peers present	10	25	41	15
	Without peers present	29	17	52	0
Explain the importance of the features or location of places	With peers present	38	42	18	1
	Without peers present	64	25	11	0
Describe the characteristics of a place using observed and collected data	With peers present	36	37	25	3
	Without peers present	57	29	14	0
Use digital globes and maps as sources of different types of geographic information	With peers present	19	22	45	14
	Without peers present	54	21	25	0
Construct maps using symbols to represent the locations of student-collected data.	With peers present	33	40	22	5
	Without peers present	54	29	18	0
Construct digital and paper maps, graphs tables, and charts to display geographic information.	With peers present	32	38	25	5
	Without peers present	68	21	11	0
Analyze various maps to identify relationships or similarities between countries or regions based on the data represented.	With peers present	42	38	19	0
	Without peers present	71	21	7	0
Analyze the relationships and pattern between political boundary lines and features on maps to describe possible trends.	With peers present	45	41	14	0
	Without peers present	68	25	7	0
Construct a digital or paper map that answers a geographic question; describing the data they used to inform the answer.	With peers present	47	33	19	0
	Without peers present	71	21	7	0
Use various options for presenting answers to a geographic question (i.e.. multimedia, graphs, maps).	With peers present	40	41	16	3
	Without peers present	57	32	7	3

Note. Results reported in percentages rounded to the nearest whole number

In looking at the data across research questions it can be surmised that generally teachers in Strata B, report that they believe that most geography skills and knowledge are not important. This conclusion that geography skills and knowledge are not important is reflected in the lack of focus teachers have on designing instruction and working towards the geography standards, despite a lack of geographic books and materials.

While it may be that teachers in Strata B are teaching some students who have more significant and complex disabilities, the lack of understanding and knowledge about the role geography skills and content knowledge play in the transition to adult life and independence may be another important area for ongoing study. Further qualitative study may be needed in order to understand why teachers in programs without peers present do not feel the study of geography is important, and if that view is, in fact, reflected in their classroom based decision making on what to teach.

Chapter 5

Discussion

The purpose of this quantitative study was to investigate if a relationship exists between separate classroom placements of special education students and in the instruction of the core subject area of geography. More specifically, this study sought to investigate if the presence of typical peers in the school building where students with disabilities were educated in segregated special education classrooms made any statistically significant impact on the students' with disabilities access to books and materials on geography topics, participation in direct instruction in geography and progress made towards the national geography standards.

Additionally, the study sought to gather reported beliefs from special education teachers who are teaching in segregated classrooms, regarding the importance of geographic skills and content knowledge in order for students with disabilities to self-advocate in the future.

The sample for the study included 124 special education teachers from New Jersey who were contacted via email or the Facebook page of the New Jersey chapter of the Council for Exceptional Children, the professional organization for special education teachers. Teachers were asked to answer questions on a researcher-designed survey concerning their students and topics in geography education. Data collection took place online during the weeks of May 3, 2014 to Saturday May 24, 2014 through the e-survey webhost, e-Surveycreator.com. This study used a stratified random sampling method by identifying the teachers into one of two different stratum: teachers of segregated special education classes in schools where typically developing peers were present, or teachers of

segregated special education classes in schools where typically developing peers are not present. The make-up of the sample accurately represented the population of special education teachers who teach in separate special education settings in New Jersey.

The survey consisted of four questions for each of the twenty geography skills or content knowledge topics. The topics were sorted into broad thematic categories aligned with the national geography standards. The first ten topics were related to content knowledge and covered essential elements identified in the national geography standards. The second ten topics were related to the geography skills identified in the national geography standards that provide the necessary techniques and tools individuals need to think geographically. The questions were written to assess various intellectual skills, including the abilities to identify, describe, construct, analyze, explain and compare. Since the standards are based on scaffolds across broad groups of grade levels, the questions were written to reflect the lowest scaffold, or basic information of each content knowledge or skill.

One hundred and twenty four surveys were answered and the Statistical Package for Social Science (SPSS) software found 88 fully completed surveys that were deemed valid for full analysis. It was determined that the 88 surveys were sufficient to complete a MANOVA analysis on the data from each of the first three research questions, and to provide data for the fourth research question, which asked for each topic to be reported in percentages. A p-value, the mathematical measure of statistical significance, was obtained for the first three of the research questions. The mean and standard deviation were also obtained for every question. The statistical mean provided the central tendency for each question studied, while the standard deviations offered an available definition to

explain potential variations for the distribution of answers in each question. A discussion of the potential impact of the reduced number of surveys analyzed is included in the limitations sections of chapter 5.

Interpretation of the Findings and Discussion

Research Question 1

The survey asked teachers to compare the students with disabilities in their classroom to their same aged, typically developing peers, and to report how many books and materials the students in their class had access to that are related to each of the geography topics on the survey. The results for research question 1 found that teachers report that there is a statistically significant relationship between program placement and access to books and materials related to every one of the geographic skills and knowledge topics asked about on the survey.

While all the teachers who participated in the study perceived that their students had less access to books and materials on geography topics than their typically developing peers, teachers in schools without the presence of typically developing peers who participated in the study reported a belief that the students in their classes have far less access to those books and materials than did the teachers who are in schools in schools where typically developing peers are present.

This is an important finding, as access is the foundation to inclusion (World Bank, 2013). On every one of the geography topics, students with disabilities in schools with no typical peers had less access to books and materials on geography content. Segregating students with disabilities into special education classrooms in schools where no peers are present deprives them of the benefits that general education classrooms have to offer,

with the most basic benefit being the tools for instruction.

Books and materials are important to teachers as well as students. According to Budiansky (2001), when classroom teachers lack the in depth academic preparation to teach specific content areas, they tend to rely heavily, almost disproportionally, on the textbook for guidance. According to Geography professor David Keeling (2007), one of the most telling issues is that many, if not most, K-12 classroom teachers who should be teaching geographic knowledge and skills have not formally studied geography at the university level. It is important then to realize that these textbooks and instructional materials may be the only avenue to provide teachers with guidance on the scope and sequence of a high quality geography instruction.

Access to high quality books and materials helps teachers to assess student progress through the curriculum and the standards. In many instances textbooks come with supplementary materials including consumable worksheets, transparencies, CDs, videos, and online resources. These materials can help a teacher to adapt the instruction in order to meet the needs of students with disabilities and it helps to enhance the content for students who benefit from multiple means of representation in order to understand the concepts (Kulm, Roseman, & Treistman, 1999).

Without access to these books and instructional materials geography may continue to be a forgotten subject within the Social Studies content area in both schools without typical peers present, and in schools where typical peers are present. There exists a common agreement (within the geography education community) that in general education classrooms typically developing students are not progressing in the subject area of geography as much the geography educators think is sufficient (Edelson, et al., 2013;

Ayas, 2010; Civic Impulse, n.d.). Despite geography's status as a core academic subject within both the *No Child Left Behind Act (NCLB)* and the *Individuals with Disabilities Education Improvement Act (IDEA)*, the 2010 National Assessment of Educational Practice (NAEP) overall geography scores were less than extraordinary when compared with the testing from 1994. This pattern of global access issues is a key finding and will be important to educational leaders and public policy advocates.

Research Question 2

The survey asked teachers how often their students participate in direct instruction and activities related to each geography topic listed on the survey. The results of the MANOVA analysis for this question indicated that there is a statistically significant relationship between program placement and participation in direct instruction in geography in only three specific areas: describing why people and countries trade goods and services; using digital globes and maps as sources of different types of geographic information; and constructing digital and paper maps, graphs, tables, and charts to display geographic information. For these topics, the teachers participating in the study reported that the level of participation in direct instruction was lower for students in schools without the presence of typically developing peers than in schools where typically developing peers are present.

Another important finding for this research question was that all of the teachers in the study reported that direct instruction in geography education was not consistently occurring in their classrooms. The descriptive data showed that the mean value for all of the teachers fell into the range from 2.96 (*rarely*) to 1.38 (*never*) across all of the topics and activities related to geography skills and knowledge that were on the survey.

Participation is key in aiding all people, including students with disabilities, for the transition into adulthood and independent life. Critical Disability Theory defines disability as something distinctly separate from the impairment. The impairment becomes disabling when participation in society is blocked by outside forces (Lang, 2001). People with impairments may be blocked from participation by the physical barriers present in the environment, or the attitudinal barriers created by a society that excludes people who do not conform to that society's standard of normalcy.

Students must participate in geographic education activities in order to learn these skills. Knowledge is first constructed within a social context and then internalized, so it can be used by the individuals in other settings (Vygotsky, 1978; Eggen & Kauchak, 2010). Educators need to understand that individuals construct geographic knowledge from experiences in interacting with and participating in their environment(s) (Tuan, 2002). When students participate in direct instruction in geography, the knowledge become an essential part of the self-determination skills that will help reduce the future barriers to participation in the community.

The results from question 2 supports the need for teachers to focus on becoming place-makers, and foster the relationships between students and their larger communities outside of their self-contained classrooms. This sense of place is the foundation of the principle of the inclusion of students with disabilities into schools and classrooms where their typically developing peers are educated. If schools continue to segregate students from the people they will live, work, and interact with in the future, then the same pattern of segregations will likely continue into adulthood.

Research Question 3

The survey asked teachers to report how successful the students in their classes were in mastering the content knowledge/skills from the national geography standards based on the topics presented on the survey. The results of the MANOVA analysis identified statistically significant results showing that teachers reported that students taught in separate special education classrooms in schools where typically developing peers were not present consistently made less progress in the mastery of the content knowledge or skills than students taught in separate special education classrooms in schools were typically developing peers were present.

While the results were statistically significant, the findings also report that teachers are acknowledging that the plurality of the students with disabilities, no matter where they are placed, are not making sufficient progress towards the standards. The mean value for all teachers fell into the range that identified students were *much weaker* than their typical peers in general education classes, with a range between a high of 1.94 and a low of 1.17.

The results of this research question provide one measure of documentation that New Jersey schools are in direct conflict with the mandates of the *Individuals with Disabilities Education Improvement Act (IDEA)*. In 1997, *IDEA* was amended to shift the focus of schools toward being responsible for students with disabilities to make measurable progress towards the general education curriculum, specifically including the geography curriculum in the list of academic areas (Karger, 2005; Hardman & Nagle, 2004).

As stated in chapter 2, the state of New Jersey collects no formal data that

captures how much progress students with disabilities in segregated schools are making in the geography standards due to the summary exclusion of these students from taking the National Association of Educational Practice (NAEP) assessment (T.McKinley, personal communication, December 13, 2013). From the results of this study we now have teacher reported data that states that students with disabilities educated in segregated settings are failing to make meaningful progress towards the geography curriculum or standards. With the exclusion of students with disabilities in segregated settings from the NAEP assessment, New Jersey has summarily turned a blind eye to the *IDEA* requirements.

It can be the institutional structures that are standing in the way of people with disabilities having the skills necessary to be participating members of society. As reviewed in chapter 1, despite federal regulations requiring otherwise, it is the educational settings in this state that are designed to help students with disabilities become ready to participate as active members of the community that are repeatedly discriminating against them by not requiring students with disabilities make progress towards the state geography standards.

Research Question 4

The survey asked teachers to report how important they believed the content knowledge/skills presented in the survey were in guiding their students towards independency in their future. The results were presented in percentages, and the results showed that teachers from Strata A (schools with peers present) reported the belief that the geographic skills and knowledge listed in the survey were generally more important in helping their students to be independent in the future than the teachers in Strata B

(schools without peers present) did, but neither group identified any skills or knowledge as essential.

The findings from this research question are important for educational leaders and policy makers to understand. In looking at the data from this question in context with the results from the other questions, it is apparent that teachers in Strata B (schools without peers present) across the board reported that they believe geography skills and knowledge are not important. This reported belief is aligned with the limited actions taken by teachers who are reporting a lack of access to geographic books and materials, a lack of participation in direct instruction and activities in geography and limited progress made towards the geography standards.

Research can be an influential factor in change since it reveals new information that makes changes in the laws, regulations, and classroom practice necessary. Within special education, there are four global sources of change initiatives – legislation, court decisions, administrative rules and professional initiatives (Gallagher, 2006). The results of this research question need to drive a professional initiative change agenda in special education, from the status quo to a new focus on geography education. The results of this research questions demonstrate that there is complacency among special education teachers in segregated classrooms, with no sense of urgency towards incorporating more geography education in the classroom, but there should be. The overall importance of geography as a field of study for all students cannot be understated. Geography can be a bridge between the social sciences and the physical sciences (Bonnett, 2008; National Research Council, 1997). As the world becomes more interconnected politically, economically, and environmentally, issues and concerns that were once considered local,

are now global. The skills and knowledge that are the foundation of geography must be rediscovered educators and educational leaders as well as by scientists and policymakers. Geography has been identified as a core subject that needs to be taught to all students in all schools, including schools specifically designed to teach only students with disabilities.

Acknowledging the results of research question four, classroom placement may be one defining factor in the success or failure a student with disabilities to be an active member of society. As stated in a previous chapter, according to the Paul Sherlock Center on Developmental Disabilities, "community membership at age 10 predicts community membership as an adult; the more separate the child's education at age 10, the more likely they will be in the same type of setting at age 25" (as cited in New Jersey Council on Developmental Disabilities, p 5). Placement in classrooms apart from typically developing peers, and placement in a school with no typically developing peers is another form of labeling students with disabilities as less worthy than their peers. "Labels, which in essence name students' inabilities, offer little guidance for educators, in fact, they may influence teachers to unintentionally or inadvertently set limits on the learning opportunities for these students" (Wong, 2013, p.13).

Teacher beliefs and personal biases may be impacting decisions on which content and skills receive the most focus in the classroom. School culture and historical practices may also have an impact on a teacher's reported beliefs with critics of segregated schools for students with disabilities arguing that "special schools educate disabled people into a lifetime of dependence and marginalization, by not providing disabled people with the

skills and qualifications necessary to compete effectively in the labor market" (Holt, 2003, p. 119).

Limitations of the Study

This study had four limitations. The most significant limitation was the use of an e-survey. While an effort was made to keep the study as uncomplicated as possible for the participants, with 20 identified topics and four questions that were repeatedly asked on each topic, the data revealed a number of incomplete surveys. One hundred and twenty four surveys were collected, (24% over the goal of 100 surveys), yet it resulted in only 88 completed surveys that SPSS used for the MANOVA analysis. Looking back at the raw data the researcher noticed that several participants left only one question on the entire survey blank, therefore triggering SPSS to remove that survey from the analysis. While every demographic question was not mandatory, the removal of those surveys missing the full demographic information impacted the number of surveys analyzed for the study. In evaluating the surveys that were not included in the SPSS analysis by hand, it was revealed that no outliers or significant information was included on these surveys and the surveys were consistent with surveys analyzed. Ultimately, the study yielded strong results and the researcher believes that the removal of those surveys did not significantly impact the results.

The use of a survey to have teachers self-report their behavior was also a limitation of this study. The survey was both voluntary and self-reported, with participants reporting the degree to which their current teaching practices reflected the questions asked in each topic of the survey. In looking at the raw data, nine of the teachers who identified themselves as teachers of students with severe disabilities in

schools without the presence of typical peers, the teachers scored every question with the lowest possible answer on the Likert type scale with a total time to answer the survey averaging at 5.25 minutes. Other teachers who completed the survey with varied answers across the Likert-type scale took an average of 16.0 minutes. This pattern could reflect both a lack of intense scrutiny of the topics and questions near the end of the survey, or a pervasive set of low expectations that teachers have for the students they have identified as having significant intellectual disabilities in the area of academic concepts, specifically geography concepts. The researcher did not anticipate this pattern of teachers of students with significant intellectual disabilities rushing through the survey and it is highlighted as an area for potential follow-up qualitative research.

Obtaining survey participants for the study was also another limitation of this study. The use of the membership list from the New Jersey chapter of the Council for Exceptional Children (NJ CEC) and the Facebook friends of the NJ CEC relied on those teachers who have a current membership to this professional organization. It was reported to the researcher that the survey did snowball from participants to their professional colleagues, which was not planned, but was acceptable, as teachers who did not meet the basic criteria would be screened out during the demographic section of the survey. The use of a third party, a member of the executive committee of NJ CEC, to send the email link to the membership was also linked to this limitation. I did not gain access to the membership email list as this was designed as an anonymous survey due to the remote possibility that any identifying information could be obtained. While the assistance of this educational professional was helpful, the follow-up email containing the link to the survey was not sent out in the recommended timely manner and therefore, time was

wasted during the data collection period.

Determining the potential population of special education teachers who may be eligible to participate in the survey served as another limitation. The number of special education teachers in New Jersey is very large, and that population changes during the school year based on the number of students found eligible for special education and related services. Districts find students eligible for special education supports and services throughout the year, and young students become eligible on their third birthday and are not required to wait until the following school year to start school. Segregated public and private school classroom and programs are added and eliminated at any time of the year based on need. The membership of the NJ CEC is also updated year round, and members that did not renew their membership in a timely manner are taken off the email list. It was impossible for the researcher to gather an accurate number of the number of self-contained special education classrooms or teachers at any given time, so the percentage of the eligible population and return rate could not be determined.

Future Directions of Research

Geography Education

This research focused on the reports of special education teachers on how the geography education of students in segregated special education classes compared to the perceived geography education of their typically developing peers. The teachers reported that geography education was less of a focus in segregated special education classes than they perceived it is in general education classes, but more research needs to be conducted to discern if that perception is accurate. Without statewide inclusion of geography topics on the statewide high stakes student assessments, there is currently no accurate

measurement or data in New Jersey on the amount and depth of the geography skills and knowledge taught in any general education classrooms statewide.

Road Map for 21st Century Geography Education Project

Follow up research based on the recommendations of the Road Map Project and implementation of Road Map agenda will also help all students access a high quality geography education. One research recommendation listed in the Road Map Project identifies that additional research is needed in the area of providing supports for teachers of diverse learners (Bednarz, Heffron, & Huynh, 2013). An exemplary geography curriculum is the foundation for all students, and well-designed guidance must be given to support teachers on how to appropriately adapt the materials and instruction to suit the needs of a variety of students while still keeping true to the core ideas in the curriculum.

Special Education resources and program development

Historically, classroom placements mattered when practices existed that marginalized students with disabilities by establishing and maintaining parallel educational systems: one for students with disabilities and another for students without disabilities (Erevelles, 2000). The findings of this study demonstrated a logical pattern that students who had less access to geography books and materials, and who spent less time participating in direct instruction in geography topics, will make less progress towards the geography standards

Future research is warranted in the area of the Individualized Education Programs (IEP) decision-making process regarding placement decisions by IEP teams in schools where typical peers are not present. This focus on decision-making will assist in determining why the segregated classrooms have been and may continue to be a

recommended placement for students with disabilities, and how to develop programs that provide for the needed specially designed instruction in less restrictive settings.

Special Education Teacher Perceptions

Further qualitative study may be needed in order to understand why teachers in programs without peers present feel as though the study of geography is not important, and if that is reflected in their classroom based decision-making regarding the content and skills taught. In-depth qualitative research is also needed in the area of teacher expectations for students with severe disabilities, and how those expectations relate to and impact the quality of education.

Public Policy in Special Education

It is important for schools and society to know if teachers are reporting that classroom practices have changed based on changes in federal law and/or state policy, as well as it is important to know if teachers are functioning in the classroom in ways that continue to enforce past practices. Without structural and foundational change, students with disabilities who are educated in segregated classrooms and schools may not learn the skills and attitudes that are needed to get along with others, and to function as independently as possible and to be included in a non-disabled world (Shapiro, 1999). Research may also be warranted on the implementation of federal laws at the state and local levels. Both qualitative and quantitative methods should focus on how the United States Department of Education and the State Department of Education monitor the district level of implementation of *IDEA* regulations, and how those results impact the state and district level policies that influence change.

Transition to Adulthood and Independent Living

The results of this study indicate that students with disabilities may not be prepared to live as independently as possible as they transition from school into adult life. More research is needed on the outcomes of *IDEA* Part D, the transition of students with disabilities to become independent, fully participating adults in society for those students who were educated in segregated classrooms.

Summary

The findings of this study indicate that despite the legal obligation to provide all students with disabilities an education in the content area of geography no matter the classroom they are educated in, there were statistically significant relationships found between classroom placement and many of the aspects of a high quality geography education. Additionally, 85% of special education teachers who teach in segregated settings reported that they did not feel that the geography skills and content presented in the study were important for students with disabilities to know in order to self-advocate and live as independently as possible in the future.

Without understanding what is occurring at the classroom level, educational leaders cannot make fundamental and sustainable organizational change. Conflicts may arise, as teachers must change their long held beliefs and practices by altering the skills and knowledge they teach to a student's with disabilities population. Without learning and adopting new ways to approach the teaching of students with disabilities self-determination skills, and without believing those skills are essential for independence, the sustainability of this kind of change is in jeopardy and the marginalization of this population will continue.

This deliberate focus on the importance of developing geo-literacy skills and knowledge is essential for the ongoing conversation surrounding the education of students with disabilities. Without developing a sense of place, individuals with disabilities may be considered capability poor, by letting their impairment and deficits determine the ways in which they interact with their environment and participate in society. It is the understanding of the internal and external barriers that impede schools from developing and providing effective geo-literacy educational programs for students with disabilities, and the conscious inclusion of these skills throughout the years that will ultimately change the destined course of marginalization for individuals with disabilities in society.

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Appendix

Survey

Geography Education Overview

States are striving to meet the requirements of the *No Child Left Behind Act of 2001 (NCLB)* by implementing high-stakes testing in the content areas of language arts, mathematics and science. Despite being considered a core academic subject in both *NCLB* and the *Individual with Disabilities Education Act (IDEA*), geography is not included in this high stakes state testing. Despite that, many of the geography related skills and content are being taught in reading/language arts; math; science and foreign language classes in addition to social studies classes. The purpose of this research is to study how students with disabilities have access to, participate in, and makes progress towards general education geography standards

Description of the Research: You are invited to participate in a research study about geography skills and knowledge taught to students with disabilities. You are asked to complete a survey based on your professional work experience with teaching students with disabilities in separate special education classrooms. Questions in the survey will ask you about your experiences in the classroom with teaching geography skills and knowledge in separated special education classrooms.

Risks and Benefits: The risks associated with this study are minimal. You may become tired or bored while completing the survey. If you experience these effects, you may stop the survey and continue at another time. The benefits of this survey could be increased knowledge of the content knowledge and skills associated with geography education.

Data Storage to Protect Confidentiality: This survey is voluntary and anonymous, your name, school or email address will not be asked. The e-Survey website is a secure website and completed surveys will be saved by the researcher and stored on a flash drive. Only researchers directly involved in the study will be able to view the completed anonymous surveys. The flash drive containing the anonymous surveys will be stored in a locked filing cabinet for five years. At the end of the five years, the flash drive will be erased and physically destroyed.

Time involvement: Your participation will take approximately 15-20 minutes. You are not required to answer all of the questions, and you may skip questions that you not wish to answer.

How will the results be used: The results of the study will be used for the researcher's doctoral dissertation and potentially for conferences, journals or articles, or used for educational or policy development purposes.

Participant's Rights

Principal Investigator**:** Pamela Brillante, doctoral candidate, Rowan University

Research Title: Finding Your Place in this World: A Quantitative Study Exploring the Geo-literacy Skills and Content Knowledge Taught to Students with Disabilities Educated in Separate Special Education Classrooms.

I have read the Research Description.

I understand that my participation in this research survey is voluntary and I do not need to answer all of the questions. I may refuse to participate or withdraw from participation at any time without jeopardy.

The researcher may withdraw my survey responses from the research at her professional discretion.

If there are any questions or concerns you can contact:
The principal investigator at: 973-981-0984 or brilla67@students.rowan.edu
Dissertation Chair, Dr. Katrinka Somdahl-Sands at somdahlsand@rowan.edu

I have read the Research Description and understand my rights as they pertain to this study. I agree to participate in this study.

Click to agree and move on to the study

Demographic Information

Sex
M / F

Age
20-29
30-39
40-49
50-59
60 +

Level of education
Bachelors
Masters
Masters +

Years of teaching experience
1-3
4-10
10-20
20+

New Jersey Special Education Certification
NJ Teacher of the Handicapped Standard
NJ Teacher of Students with Disabilities Provisional
NJ Teacher of Students with Disabilities Standard

School / Class Type
Public school – separate class (pull out resource or self contained class) in a school building where general education students are present.

Public school - separate class in a school building where general education students ARE NOT present. (Ex: County Special Services School District, County Educational Services Commissions)

Private School for the Disabled - separate class in a school building where general education students ARE NOT present.

Of the students you teach, the majority of their academic disabilities (below grade level) are considered to be:
Mildly academically disabled
Moderately academically disabled
Significantly academically disabled

Primary Teaching Assignment – grade level
Elementary (grades P-5)
Middle School (grades 6-8)
High School (grades 9-12)

Primary Teaching Assignment – content area
I teach all / most of the academic subjects to my students
Reading/ Language Arts / English only
Math only
Science only
Social Studies only

Primary Teaching Assignment - Social Studies Content
I am responsible for teaching social studies content to my students
Another teacher is responsible for teaching social studies content to my students

Please answer the following questions based on your experience:

1. Students construct maps and graphs to display geographic data.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
(1)	(2)	(3)	(4)	(5)

How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

2. Students identify <u>from memory</u> the locations of landmarks or other features of interest to the student in their community.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

3. Students describe and compare the types of clothing, housing, and transportation used in different countries located at different latitudes in the world.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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Much weaker	Weaker	Same	Stronger	Much stronger
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How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

4. Students identify and describe the distinguishing characteristics of several different national or global regions.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

5. Students describe how Earth's position relative to the Sun affects conditions on Earth.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
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How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

6. Students compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

7. Students describe how people and places change as a result of migration.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

8. Students describe the reasons why people and countries trade goods and services.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

9. Students identify and describe examples of how human activities impact the physical environment.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

10. Students identify the ways in which different types of resources can be conserved, reused, and recycled.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

11. Students answer geographic questions (e.g., Where is it located? Why is it there? What is the significance of the location?).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

12. Students explain the importance of the features or location of places (e.g.,) Why are good harbor facilities an important part of New York City's location?)

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
(1)	(2)	(3)	(4)	(5)

How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

13. Students describe the characteristics of a place using observed and collected data (e.g., weather, climate, elevation, population density, availability of fresh water).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
(1)	(2)	(3)	(4)	(5)

How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

14. Students use digital globes and maps as sources of different types of geographic information (e.g., road and transportation data).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
(1)	(2)	(3)	(4)	(5)

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Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

15. Students construct maps using symbols to represent the locations of student-collected data.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

16. Students construct digital and paper maps, graphs, tables, and charts to display geographic information.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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Much weaker	Weaker	Same	Stronger	Much stronger
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How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

17. Students analyze various maps to identify relationships or similarities between countries or regions based on the data represented (e.g., variations in climate related to latitude, population densities related to climate).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
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How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

18. Students analyze the relationships and patterns between political boundary lines and features on maps to describe possible trends (e.g., boundaries aligned to rivers, mountain ranges, or other physical features).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
Never	Rarely	Sometimes	Often	Frequently
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How successful are the students in your class in mastering this content knowledge /skill compared to their general education peers?				
Much weaker	Weaker	Same	Stronger	Much stronger
(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

19. Students construct a digital or paper map that answers a geographic question; describing the data they used to inform the answer.

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

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(1)	(2)	(3)	(4)	(5)

How important do you believe this content knowledge /skill is to help your students to be independent in the future?			
Not important	Somewhat important	Very important	Essential

20. Students use various options for presenting answers to a geographic question (i.e.. multimedia, graphs, maps).

Compared to their same aged peers, how many books and materials related to this content knowledge /skill do students in your class have access to?				
Much less	Less	Same	More	Much more
(1)	(2)	(3)	(4)	(5)

How often do students participate in direct instruction and activities related to this content knowledge/ skill in your class?				
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Not important	Somewhat important	Very important	Essential