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**EFFECTS OF COOPERATIVE LEARNING STRATEGIES ON THE
ACADEMIC SELF-CONCEPT OF SPECIAL EDUCATION STUDENTS**

by

Leah Feldman

A Thesis

Submitted to the
Department of Interdisciplinary and Inclusive Education
College of Education
In partial fulfillment of the requirement
For the degree of
Master of Arts in Special Education
at Rowan University
May 1, 2018

Thesis Chair: S. Jay Kuder, Ed.D.

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First and foremost, I would like to thank my parents for teaching me that my dreams are always within reach. To my husband, thank you for supporting me along the way during the long nights of studying, and the laundry piles that remained as I worked on my thesis. To my son Jacob that kept me awake while writing this with belly kicks. Lastly, to my students and coworkers in Egg Harbor Township's Autism Program, and my current students in Brigantine Elementary School, thank you for making me the teacher I am today.

Abstract

Leah Feldman Hand
EFFECTS OF COOPERATIVE LEARNING STRATEGIES ON THE ACADEMIC
SELF-CONCEPT OF SPECIAL EDUCATION STUDENTS
2018-2019
S. Jay Kuder, Ed.D.
Master of Arts in Special Education

This study examined the effects of the cooperative learning strategy referred to as “think-pair-share” on the academic self-concepts of students both in general education classrooms and inclusive education classrooms. This study included 55 third grade students, nine of them with exceptional learning needs. The study took place during a 65 minute reading block in three different classrooms; two being general education and one being inclusion, over a period of eight weeks. One of the general education classrooms was held as the control group.

In both the non-control group general education class and inclusion classroom, the think-pair-share technique was implemented to test the effect on student’s academic self-concept. The success of the technique was measured through a survey of self-concept that was given both pre-study and post-study to all three classes of students.

The disabilities represented in this study included attention deficit disorder ADHD, autism, and specific learning disability. In addition, one student has a one-on-one aide for diabetes treatment, but is also classified autistic. These students have been placed in a co-teaching environment as the least restrictive environment for successful learning. One student with an IEP is mainstreamed and is in the control group. In addition, there are two students with 504 plans for ADHD and anxiety; one being in the control group and one being in the general education class

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Chapter 1

Introduction

Many students with exceptional learning needs across the country have found themselves in a different educational setting that is meant to better meet their needs- referred to as inclusion. As the movement toward inclusion continues, classrooms containing students with exceptional learning needs, general education students, a general education teacher, a special education teacher, and teachers aides has become a new learning experience for both staff and students.

While it was previously an option for school districts, inclusion is now mandatory and required by law if the placement is considered the least restrictive environment (LRE) for the special education student. Federal statutes do not use the term “inclusion,” however; many schools have adopted the term while implementing the requirements of the Individuals with Disabilities Education Act (IDEA).

According to the United States Department of Education, the IDEA is a law that ensures a free public education that is appropriate to the learning needs of the eligible children with disabilities nationwide. IDEA was originally implemented in 1975 and governs the implementation of special education, early intervention, and the number of related sources that comes along with it to more than 6.5 million eligible children ranging from toddlers through age 21. More recently, in December of 2015, Congress amended the IDEA through Public Law 114-95, the Every Student Succeeds Act. In the Every Student Succeeds Act, Congress states:

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 for individuals with disabilities (U.S. Department of Education, 2015).

Disability affects 13 percent of the school-aged population in the United States. In the 2011-2012 school year, 336,519 children ages birth through two, 730,558 children preschool ages three through five, and almost 6 million students ages six through twenty-one received some type of early intervention, early childhood, or special education services. In all, 6,737,757 students nationwide are serviced by special education (U.S. Department of Education, 2014).

With the number of students needing special education resources rising, the challenge is to provide appropriate access to ensure that these students with disabilities are able to make the most of their education and truly benefit from it throughout their educational careers. Due to this, the field of special education is primarily outcome-driven. The four outcomes that the US Department of Education hopes to achieve with special education programs is: equal opportunity for those disabled, full participation in their education, independent living in both their early stages and later stages in life, and economic self sufficiency (Turnbull, A., Turnbull, R., Shank, M., & Leal, D., 1999).

The general education curriculum is aligned to Common Core State Standards (CCSS) set for each state by grade level. While all schools are required to meet CCSS it

is important that educators do not overlook the individual needs of special education students through the implementation of standards. IDEA requires that schools provide an appropriate education based on the individual strengths and weaknesses of the student while still working towards general academic goals. To assess how a student is meeting these academic goals, three assessments are used: standards, benchmarks, and indicators. To meet these academic goals, students with disabilities receive an individualized educational plan that is specifically tailored to their needs with accommodations to support their individual goals (Turnbull, A., Turnbull, R., Shank, M., & Leal, D., 1999).

Studies involving the accommodations made within an inclusion classroom including dictated responses, extended time, larger print, read-aloud, and computer-based assessments have yielded mixed results in terms of effectiveness for the class in whole. For example, a read-aloud of the test benefits some disabled students, not all, but typically benefits all non-disabled students (Cormier, Altman, Shyyan, & Thurlow, 2010).

Despite the difficulties that come along with inclusion for both teachers and students, evidence shows that is important to hold students with disabilities to high expectations similar to those of a non-disabled student. Providing disabled students with access to a challenging environment within the classroom setting also makes it important for the classroom teachers to ensure that any negative impact on instructional areas for students with and without disabilities is avoided. Research backs up the belief that students with even severe cognitive disabilities can benefit from inclusion instruction in the main subject areas, as well as their non-disabled peers (Soresi, S., Nota, L., & Wehmeyer, M.L., 2011).

Holding students with disabilities accountable for their education has also been found to increase those students' ideas of academic self-concept. Self-concept, in broad terms, is a person's perception of himself or herself. A person's self-concept has been shown to influence the way the person acts, and in turn, influences the way the person thinks of themselves. Academic self-concept, the perception a student has about their academic abilities, is one of the most relevant variables due to its influence on cognitive function and learning (Marsh, H. W., & Craven, R., 2002).

Academic self-concept directly affects the learning process, expectations of students, and academic achievement (Henson, K., & Heller, B., 2000). Students with high academic self-concept more often accept challenges, risks, new ideas, and value their own abilities. They possess higher motivation in order to reach these goals. In contrast, students with low academic self-concept show less confidence in their academic attitudes. They do not have belief in their abilities and often avoid situations that cause anxiety (Ommundsen, Haugen, & Lund, 2005). It is highly important to take into account a student's perception of their own academic abilities in order to structure their learning environment to promote a stronger sense of academic self-concept (Möller, J., Retelsdorf, J., Köller, O., & Marsh, H. W., 2011).

The idea of academic self-concept has been linked to student participation within classroom discussions. Special education researchers have followed Vygotsky's lead in linking mental processes to sociocultural (Reid & Valle, 2004; Rueda, 2005; Trent, Artiles, & Englert, 1998). The work is based on the idea that there are both individual and social components to learning, and academic socialization is necessary for students to develop higher levels of mental functioning (Wells, 2000). Interactive learning is defined

as participation in social exchange as opposed to solely acquisition of knowledge (Rogoff, 1995). Social participation is constitutive of learning, which requires teachers to incorporate social routines into academic tasks while taking into account the wide range of social abilities within the classroom population (Palincsar, 1998). Social interactions convey the expectation that learning in the classroom is a shared responsibility required for academic self-concept (Gutierrez & Stone, 1997).

As a former paraprofessional in a self-contained classroom for students with multiple disabilities and a current general education teacher co-teaching with a special education teacher for one period per day, I am well aware of the differences in the needs of students in a self contained room and an inclusion room. This has also brought my attention to the differences in the attitudes and academic goals of students in both settings.

As a paraprofessional, I worked at a pace specifically tailored by the special education teacher to meet the goals of that student, while not following general education paces. As a general education teacher, I now see what it is like to provide accommodations to a student with a disability to keep them on pace in a general education setting. The transition from a paraprofessional, to a general education teacher, to a general education teacher working with a special education teacher has been anything but easy. I am realizing the amount of work it takes to make sure all needs within my classroom are met. At the same time, the inclusion classroom is the most rewarding experience for me. Watching my students grow as learners and become better peers to each other due to differences is an amazing experience to be a part of.

This realization has led me to asking myself this question: While I am striving to meet the needs of the disabled students in my classroom, am I still meeting the needs of my general education students and challenging them at the same time?

Both teachers and parents sometimes struggle to understand the needs of an inclusion classroom for multiple reasons: Some feel that students with disabilities slow the pace of the class and do not allow the teacher to complete the curriculum for that year, others believe that teachers will need to work harder to find meaningful assignments for both students with and without disabilities (Winzer, 1998). With most issues, there are both positive and negative outcomes. This is true for inclusive education as well.

The results, whether positive or negative, need to be continuously studied to ensure that all students within the inclusion setting are receiving the grade level curriculum that works best for them. Studies have shown that inclusive classrooms promote compassion, social, communication, and problem solving skills for both disabled and non-disabled students. “When students with disabilities are included in the regular classroom, all students learn to get along with others in a diverse community” (Farlow, 1996).

For this study, I will be examining the effects of a technique referred to as “talk and turn.” This technique allows for student-to-student discussion about the lesson being presented. I plan to implement this strategy with two of my three third grade-reading classes, one general education and one inclusion. I will not implement this strategy with my third reading class, which is general education, to act as the control group for the study. The following research question will guide my investigations in this study: Does the use of the turn and talk strategy, also referred to as “think-pair-share,” increase the

participation of students with disabilities in the classroom to improve their academic self-concept?

Throughout my study, I will collect anecdotal notes, grades, and verbal response data to determine if students in both the inclusion setting and a non-inclusion setting are reaping the same benefits from peer-to-peer academic conversations. Each day I will incorporate a talk-and-turn activity following my mini-lesson in two of my three reading classes. I will not use this activity with my third general education reading class. After examining the data, I will conclude if the instructional technique benefitted the students in the inclusion classroom to the same extent that they benefitted the general education classroom, or if the inclusion classroom benefitted more.

Definitions of Specific Terms

Special education- specifically designed instruction to meet the students individual needs provided at no cost to the child's family.

Related services – included but not limited to instructional aides, speech therapy, occupational therapy, etc.

Appropriate education – individualization based on the needs of the student.

Individualized education program (IEP) – a legal document individualizing the needs and services of a classified, disabled student.

Least restrictive environment- formerly known as mainstreaming or integration; currently known as inclusion.

Standards- General ideas of what a student should be able to do in any grade level or subject.

Benchmarks- specific ideas of what a student should be able to do in a given subject.

Indicators- demonstrated knowledge or skills that a student demonstrates to meet the requirement.

Chapter 2

Review of Literature

If you have ever participated in a group project or joined a committee to achieve a goal, chances are you shared some of your own knowledge with the group in addition to learning something from your group. This is called cooperative learning.

Cooperative learning is a structured and organized way to use small groups within an academic setting to enhance student learning, independence, and social skills. Students are given a task, and expected to accomplish the task as a group so that each individual is responsible for their own learning. In addition to learning from one another, students learn how to work together as a team and build a stronger classroom community.

There are many different cooperative-learning strategies that can be used in the classroom. Some of these strategies are round table, group investigations, jigsaw, round robin, three-minute review, and think-pair-share (Kagan, 1998). For this study, I will be focusing on implementing think-pair-share into my third grade reading instruction.

Think-pair-share is a method that allows students to engage in small group conversations before they answer a question in front of the whole group. Lyman defines think-pair-share as “a multi-mode discussion cycle in which students listen to a question or presentation, have time to think individually, talk with each other in pairs, and finally share responses with the larger group” (Carss, 2018). Howe describes pair talk as a “high intensity talk arena” due to the responsibility placed on each person to become engaged directly in speaking and listening (Howe, 1992). The first step of think-pair-share is that the students listen to the teacher as he or she poses a question. Next, students are given time to think of their responses. After that, pairs of students hold a small discussion about

their responses. Last, the teacher calls on a few groups of students to share their thoughts and answers with the whole group (Thornton, 1991).

There are numerous reasons why we should be using cooperative-learning strategies like think-pair-share in the classroom: to promote student learning and academic achievement, to enhance student learning experiences, to aid in the development of oral communication skills, to help develop social skills and self-esteem, and to promote a positive diverse classroom community.

In addition to these benefits, think-pair-share also allows students wait time when asked a question, it increases their involvement in their own learning, verbal rehearsal, and it also provides the teacher a chance to formatively assess her students. It is suggested that wait times of 3-5 seconds be used after asking the question, and at least 3 second of wait time after each pair shares to allow for individual think time. Lyman concluded that through think-pair-share, students develop social skills, engage in positive discussions, and develop metacognitive awareness (Lyman, 1989, cited in Baumeister, 1992, p.19). According to Marzano, Pickering, and Pollock, student achievement could rise as much as 28 percent with the incorporation of cooperative-learning strategies like think-pair-share (Marzano, Pickering, and Pollock 2001).

According to David Johnson, who has performed much research in this area, there are five key components needed to make cooperative learning successful:

1. Interdependence
2. Individual accountability and personal responsibility
3. Face-to-Face interactions
4. Interpersonal and small group skills

5. Group processing

Interdependence is fostered within cooperative learning when one pencil and one paper are given to a group, a task is divided into multiple jobs, jigsaw, and rewards for group success. Along with interdependence comes individual accountability. In order for cooperative learning to be successful, it is important that all members of the group are actively participating. One way to assure this is to have students jot down their thinking before relaying it to the group, making sure all students hand in something written, and assigning specific jobs. It might be difficult, but teachers have to balance group interdependence with individual accountability. It is important that each student is participating, but it is also important that each student has the opportunity to have his or her ideas heard.

Social skills and face-to-face interactions are supported and enhanced during cooperative learning strategies. Students are orally explaining their thinking and teaching their knowledge to others. On top of that, they are agreeing and disagreeing politely with other group member's ideas and backing those thoughts up with supportive details. During this process, students will learn to listen with care, praise good ideas, ask for help, and check their group member's understandings.

Lastly, cooperative learning strategies need to be processed and assessed by both students and teachers. Students need to be thinking about what their group did well today and what they could improve on in their next think-pair-share. This skill relates back to social skills, goal setting, and becoming more responsible for creating better interactions with peers (Johnson, 1987).

Creating a cooperative learning environment for students means you are creating a meaningful learning environment for your students to thrive in. A meaningful learning environment gives students the opportunity to interpret new information, relate to that new information, and connect the new information with existing information. This shows improvement in social and behavioral areas, social interactions, self-concept, and positive feelings towards their classroom communities. (Cohen et al., 1982; Cook et al., 1985; Hartley, 1977; Ginsburg-Block, Rohrbeck, & Fantuzzo, 2006; Johnson & Johnson, 1989)

While cooperative learning is an effective method in the classroom, it sometimes becomes tough to implement. The three major challenges, as identified by researchers, are as follows; developing norms within the classroom, developing structure within groups, and developing meaningful tasks for group work.

While finding the right balance during implementation of cooperative learning may be complex, there is strong evidence that shows substantial benefit to both the individual and their growth of collective knowledge. Students involved in cooperative learning most importantly learn twenty-first century skills including working in teams, problem solving, and generalization of tasks and skills.

Cooperative learning, which Cohen defines as “students working together in a group small enough so that everyone can participate on a collective task that has been clearly assigned,” has been the topic of many research studies (Cohen). Recently, research has show that in order for students to gain retention of material, they must become “active learners.” This means that students must participate in their own learning by discussing, writing, relating, and applying it to their own lives. It has been shown that

students prefer active learning techniques such as think-pair-share rather than passively obtaining information during traditional lectures (Rao et al., 2000).

A study that took place at the Wayne State University School of Medicine focused on the think-pair-share method and tested the potential benefits. 256 students participated in the study, which took place over four or five 50-minute class periods. After the slideshow, students were asked a question and given a minute to independently think of their answer. Students then discussed their answers for one minute with peers. Questions were given at different thinking levels including basic recall and synthesis. It was found that prior to discussion, the toughest level of questioning, synthesis, was answered correctly 73% of the time. After discussion of the question, the percentage of correct answers jumped to 99%. This study shows that not only does think-pair-share promote understanding of material, but higher order thinking skills as well (Linton et al., 2014).

Another study, this time in a high school classroom at East St. John High School, tested the effectiveness of think-pair-share in the high school setting. This study resulted in opposite findings from the prior mentioned college study. Instead of highlighting the benefits of think-pair-share, it highlighted some of the previously mentioned challenges with implementing think-pair-share. For one, the study was conducted on a small class size in an area that had high absenteeism rates, which may have contributed to the lack of results (Trent, 2013).

Although many studies of cooperative learning have been tested at the college level, few have been performed at the elementary level. I think it is important to test

cooperative learning at not only the elementary level, but within special education as well.

In addition to cooperative learning being supported by research, it is also supported by educational theory. Alberta Bandura, a Canadian psychologist, founded the social learning theory. He is currently one of the most-cited living psychologists and one of the most influential of all time. Through his studies, Bandura found that social learning has three concepts, a live model for demonstration, a verbal model for descriptions and explanations, and a symbolic model, which involves real or fictional characters in books and media. Social learning has endless possibilities in the classroom including role-playing, debates, creating quizzes, think-pair-share, and group tests.

Bandura states, "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (Bandura, 1977, pg 22)."

Bandura believes that by pairing students together, students have the opportunity to discuss one another's thought processes, which may lead to helpful feedback or an appropriate model for the student. As a result, the student would have a better understanding of the topic being discussed and gives the student confidence to participate in a full class discussion. Recognition and praise then contributes to the mastery of the topic and a gain in academic self-concept (Woolfolk, 2011).

Mastery of a topic and praise provides the student enough confidence to set higher academic goals for themselves, thus producing future success. Think-pair-share is a cooperative learning method that is responsible for higher success rates within the classroom, but also promotes wait time within instruction (McTighe & Lyman, 1988). In educational terms, wait time is the time between posing a question and calling on a student. There are two types of wait time: the time spent after a teacher's question and the time after a student speaks (Rowe, 1972). Think-pair-share allows for wait time after the teacher's question but before the student's discussion and after student's discussions are shared with the whole group.

Mary Budd Rowe conducted multiple studies on wait time within elementary science programs. After five years of study, Rowe concluded that allowing a wait time of three seconds or more decreased student failure to respond to a question and increased the length of appropriate student responses (Rowe, 1972).

Cooperative learning, including the use of think-pair-share, is beneficial to classrooms for multiple reasons. According to Rowe, it promotes wait time and increases the likelihood and appropriateness of student responses (Rowe, 1972). As Bandura stated, cooperative learning has also been found to improve student's academic self-concept and an increased participation in discussion (Bandura, 1977). For these stated reasons, it is my hypothesis that implementation of the think-pair-share strategy will promote student participation within my inclusion classroom in addition to increasing my students' confidence in their reading abilities.

Chapter 3

Methodology

Introduction

Participants in this study were observed and surveyed to determine if the cooperative learning strategy, referred to as think-pair-share, is beneficial to the self-perception of students in both general education and inclusion classrooms.

Setting and Participants

The school district where this study was conducted is a single district broken down into an elementary and a middle school. The elementary school houses pre-k through 4th grade, and the middle school houses 5th through 8th grade. The school day is 6 hours and 15 minutes long. Within the school day, each 3rd grade class receives a 65-minute block of reading and spelling instruction combined.

According to the Public School Review, the school district is comprised of 687 students. The school population contains 69% white, 7% black, 16% Hispanic, and 8% other. Within the population served, 50% of the students are economically disadvantaged. The school is split 49% to 51% female to male. There are 87 students within the district receiving special education services.

This study was conducted in three third grade-reading classes, including 55 students. One classroom was an inclusion classroom for students with and without disabilities. The classroom included 16 students, 9 male and 7 female. Within those students, 7 have IEPs (6 male and 1 female) with the following disabilities: Autism, ADHD, and Specific Learning Disabilities. This classroom also contains one special

education teacher and one 1-on-1 aide for a student that has diabetes in addition to autism. Students in one general education classroom participated in the think-pair-share instructional method. This classroom included 20 students (15 male; 5 female), one of who had a 504 education plan. The third classroom was another general education class consisting of 16 students (9 male; 7 female) and one student with an IEP for ADHD and one student with a 504 plan. This class did not receive the think-pair-share intervention.

Within the 55 students that participated in the study, 36 were male and 19 were female. Ten of the students studied are classified, eight with IEPs and two with 504 plans; seven students with IEPs are in the inclusion room. The disabilities represented in this study range from Specific Learning Disability, Autism, ADHD, and reading disabled.

Materials

The curriculum this study was based off of is the *Lucy Calkins Readers Workshop Manual*. More specifically, it was conducted during Unit 3: Character Studies, which lasted 8 weeks. This was the first year that students were exposed to the Reading Workshop Curriculum, as they made the switch from the *Reading Street* series. The topics included in this curriculum include in-depth character study, study of plot and theme, and a novel study based off of *Because of Winn Dixie* and *Diamond Dynamite*. All students also participate in *Fountas and Pinnell Reading Leveling*. Students are evaluated and given a reading level based on their comprehension and fluency skills. Each student has access to a library of books at their reading level where they work until they are again leveled and move up to the next alphabetical level. It is important to note that while all students are given the same mini-lesson, their independent reading practice and exit slip are completed using a book from their level, which may or may not be the same as their

peers' choices. The reading levels in my classes range from a first grade level to a sixth grade reading level.

Procedure

At the start of the study, all students completed a baseline assessment on their knowledge of their own self-perception. The baseline assessment contained five questions that were based off of the following self-perception statements:

1. I can do as well or better than others at school.
2. I am as smart as most people.
3. I can understand skills taught at school.
4. My skills are weaker than other people in this class.
5. I have a good understanding of things I learn at school.

Students had four options to answer the questions including strongly agree, agree, disagree, and strongly disagree. There was no rubric to grade the test. The survey data was collected. It was not used for a grade but rather to show growth compared to a post-assessment containing the same five questions and answer possibilities.

During the eight-week study, one general education classroom containing 20 students and the inclusion classroom were instructed on how to implement the cooperative learning strategy, think-pair-share, during and after their Reading Workshop mini-lessons. Think-pair-share groups were predetermined in the inclusion classroom to ensure classified students were working with non-classified students. During share time, teachers observed, gathered notes, and intervened in some of the discussions.

Students were instructed that during a mini-lesson, they would be instructed to share with a peer close by or an assigned partner. During this time, they would focus their

conversation on the topic or question presented by the teacher. Students would each share their opinion on the topic or answer, and provide constructive feedback or response to their partner's opinion or answer as well. At the conclusion of think-pair-share, students would be called on to share the ideas discussed with their partner with the teacher and class.

At the conclusion of the mini-lessons, students went off to independently read and work on their exit slips, which were based off of the mini-lesson presented that day. All exit slips were collected and evaluated for data collection purposes and returned to the students. While the control group did not participate in the think-pair-share activities daily, they did complete the same exit slips as students in the other two classes. Again, these exit slips were collected and analyzed for data collection purposes and returned to the students.

Variables

The independent variable for this study was the incorporation of the think-pair-share method within two out of three classrooms, one being the inclusion classroom. The dependent variables were the use of Reading Workshop mini-lessons and the exit slips completed by students at the conclusion of the mini-lesson.

Chapter 4

Results

Summary

In this research study, the use of the collaborative learning method referred to as think-pair-share, was examined to determine if it was an effective learning method that increased student participation in both the general education setting and the special education setting. More specifically, this study was conducted to determine if students with disabilities increased their academic self-concept by participating in the think-pair-share method.

Throughout my study, the think-pair-share method was introduced to a general education classroom, and inclusion classroom, and it was withheld from a general education classroom that acted as a control group. Students took a pre-survey and post survey to monitor their evaluation of their own academic self-concept. The research question to be answered by this research was: Does the use of the turn and talk strategy, also referred to as “think-pair-share,” increase the participation of students with disabilities in the classroom to improve their academic self-concept?

Results

Tables 1 through 4 presented below show the results of the surveys that students took before the study. All 55 students participated in this survey whether they were part of the study or remained in the control group. The data for the students in the inclusion classroom with IEP’s is presented in a table separate from the data of their general education peers. The survey was conducted to gather information on the students’ academic self-concept.

Overall, 65% of students agreed or strongly agreed that they perform as well or better than others at school. 51% of students agreed or strongly agreed that they were as smart as most people. When surveyed on understanding skills taught at school, 69% of the students agreed or strongly agreed that they understand skills being presented to them. 40% of students agreed or strongly agreed that their skills were weaker compared to other peers in their class. Lastly, 60% of students felt as if they had a good understanding of what they learned in class.

Table 1

Pre-Survey Class 3A – Inclusion Classroom (General Education Students)

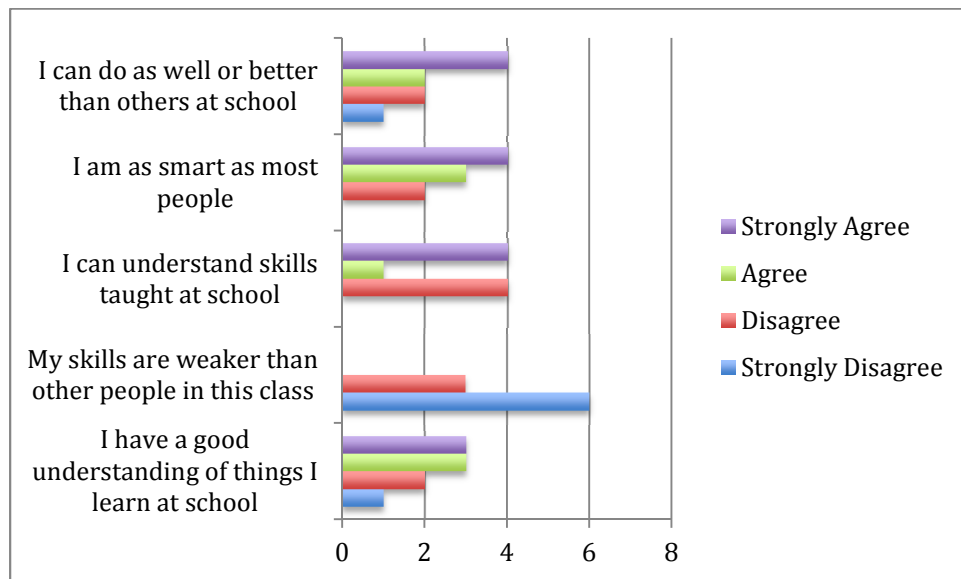


Table 2

Pre-Survey Class 3A- Inclusion Classroom (Students with IEPs)

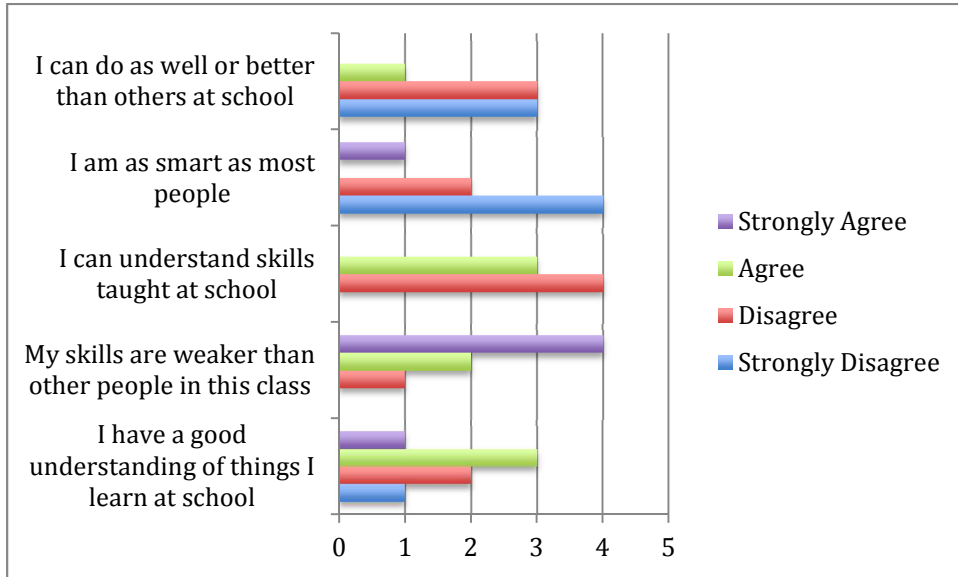


Table 3

Pre-Survey Class 3B- General Education

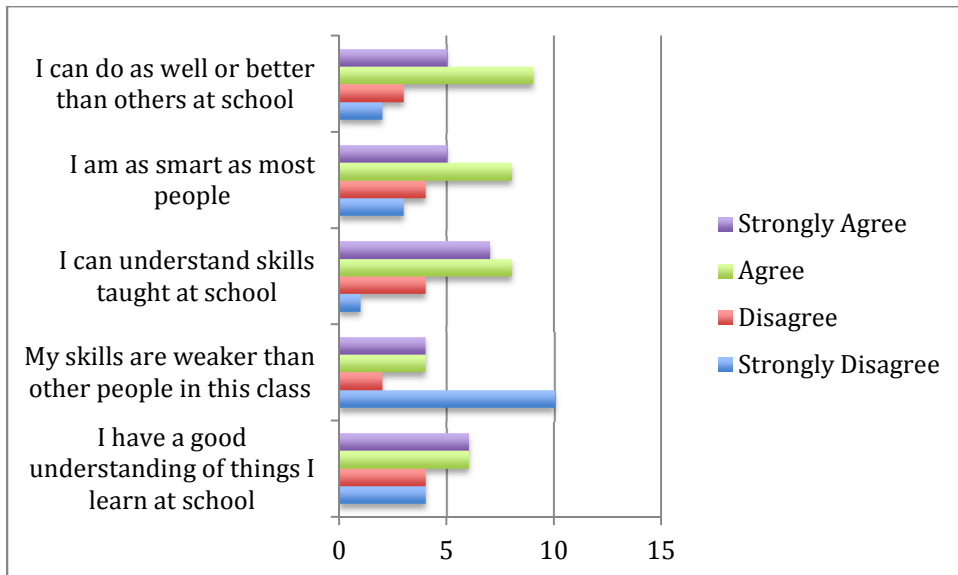
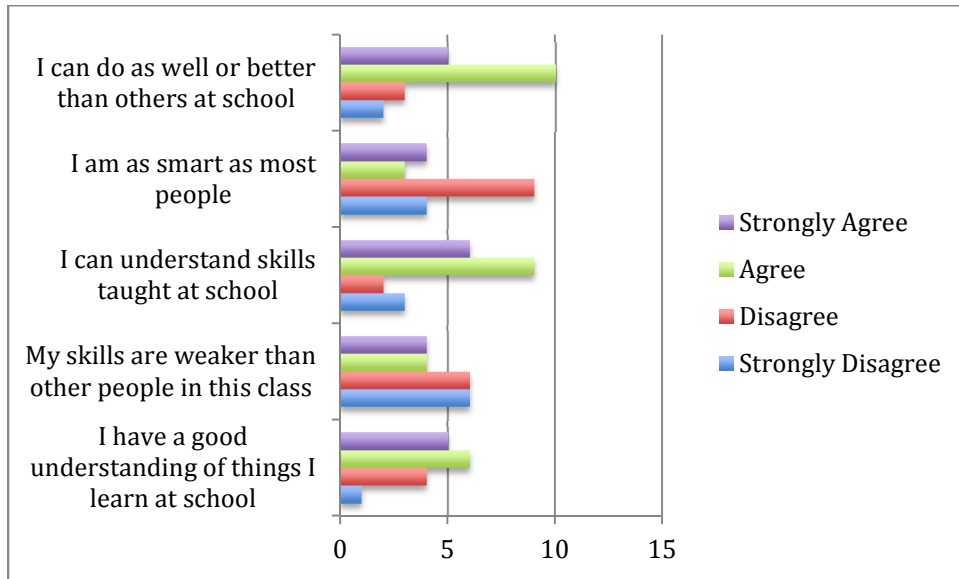


Table 4

Pre-Survey Class 3C- General Education (Control Group)



Students answered the same questions at the conclusion of the study to determine if their feelings about their academic self-concept changed after 8 weeks of the use of think-pair-share during reading lessons. Tables 5 through 8 show the results from the post-survey students answered.

According to the post-survey, 69% of students felt that their work compared or was better than that of their peers. Compared to the control group, where only 59% of students felt as if their work was comparable to that of their peers. 79% of students felt that they were as smart as most people, which shows a 28% increase from the pre-survey. When asked if they understood the skills taught at school, 74% of students agreed that they were able to understand the skills as compared to only 69% of those students who agreed in the pre-survey. Only 33% of students felt that by the post-survey, their skills

were weaker than those of their peers. This resulted in 7% decrease from the pre-survey. In comparison, by the post-survey, 63% of students in the control group still felt that their skills were weaker than their peers'. Lastly, 64% of students felt that they had a good understanding of skills learned in school as compared to the 60% that agreed in the pre-survey.

Table 5

Post-Survey Class 3A (General Education Students)

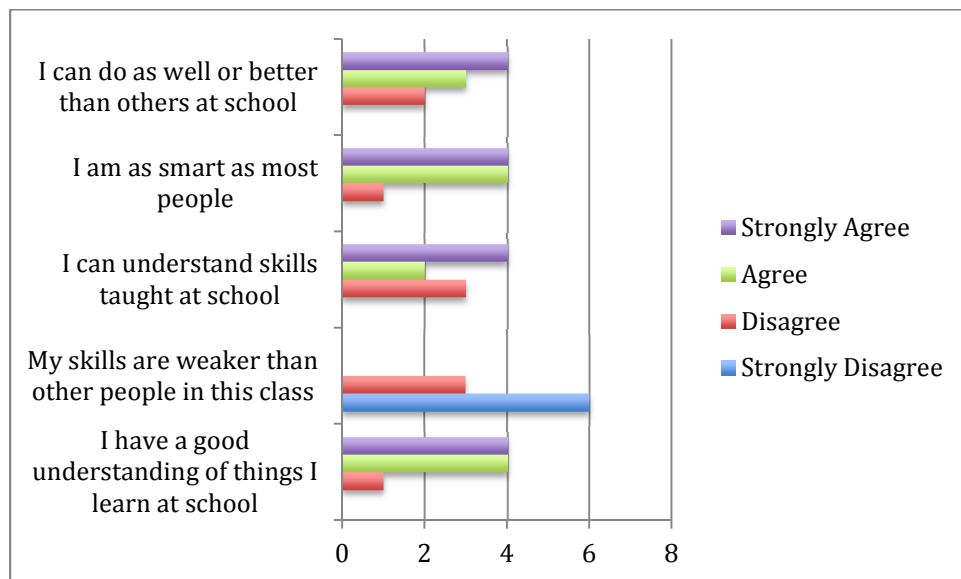


Table 6

Post-Survey Class 3A (Students with IEPs)

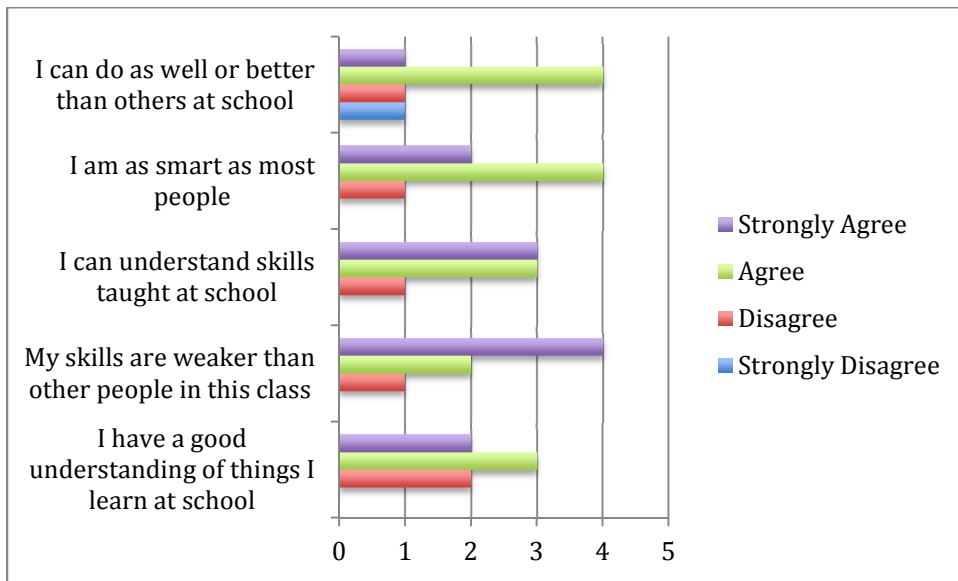


Table 7

Post-Survey Class 3B (General Education Students)

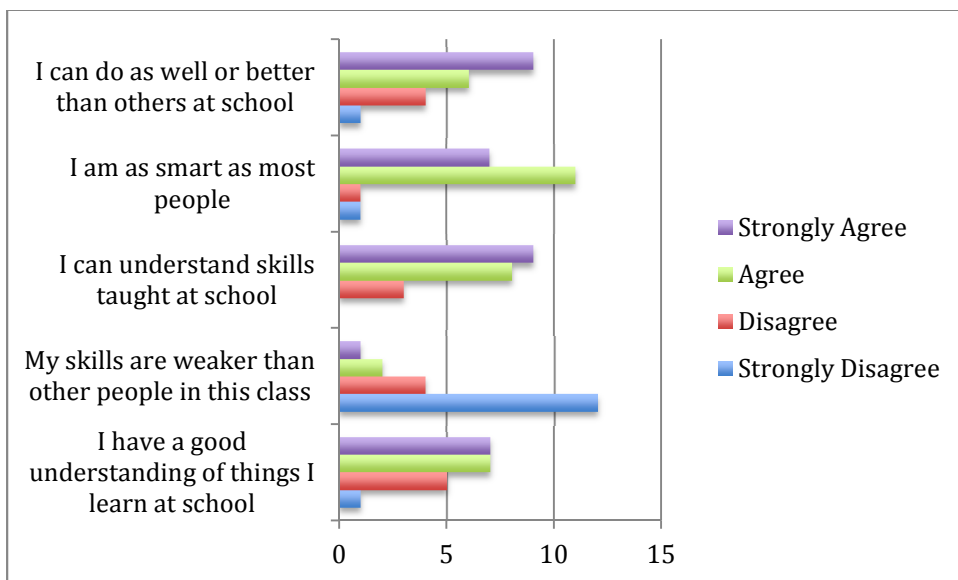
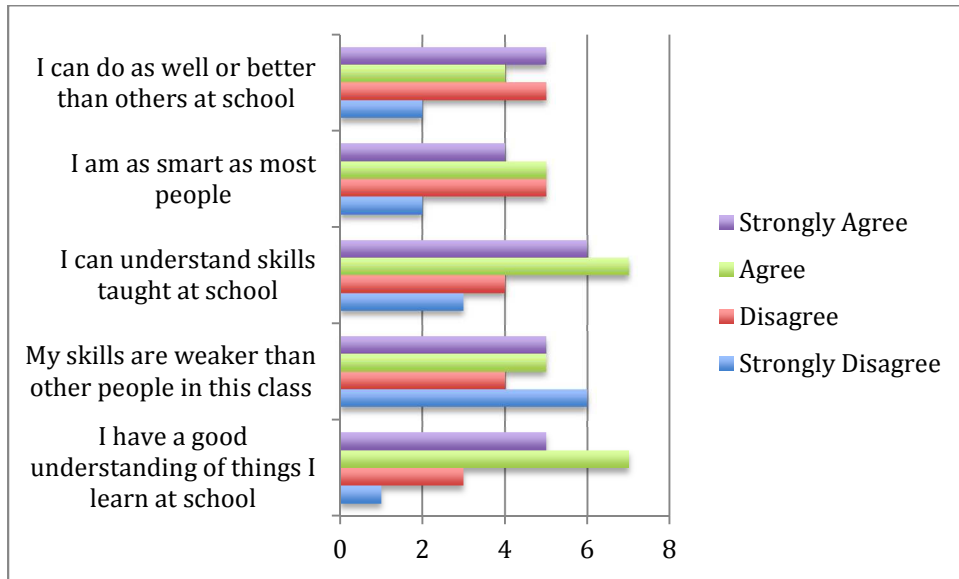


Table 8

Post-Survey Class 3C (Control Group)



By taking a closer look at the results from the pre-survey to the post-survey of the students with IEPs, it can be concluded that the percentage of students that felt as if their performance was on par or better than that of their peers rose from 14% to 71%. At the time of the pre-survey, only 14% of students with IEPs felt that they were as smart as most people which rose to 86% by the conclusion of the study. 43% of students with IEPs agreed that they understood the skills taught at school at the time of the pre-survey. By the post-survey, 86% of students with IEPs agreed that they understood the taught skills. When surveyed about their understanding of things learned at school, 57% of students with IEPs agreed at the time of the pre-survey, and 71% of students with IEPs agreed by the time of the post survey. The percentage of students that felt their skills were weaker than those of their peers remained the same at 86%.

The students test grades were also studied over the 8-week study and presented as follows in tables 9 through 12.

Table 9

Class 3A- Inclusion (General Education Students)

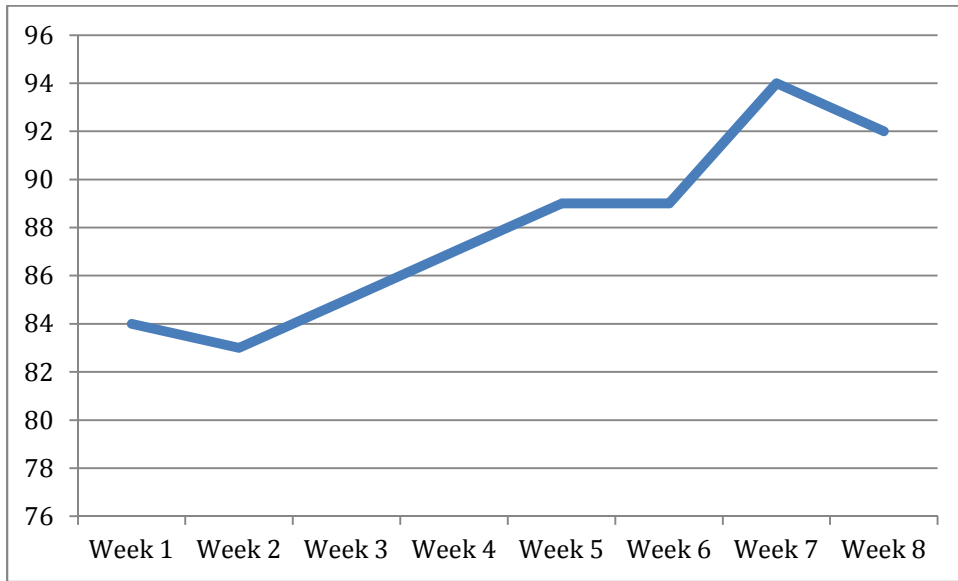


Table 10

Class 3A- Inclusion (Students with IEPs)

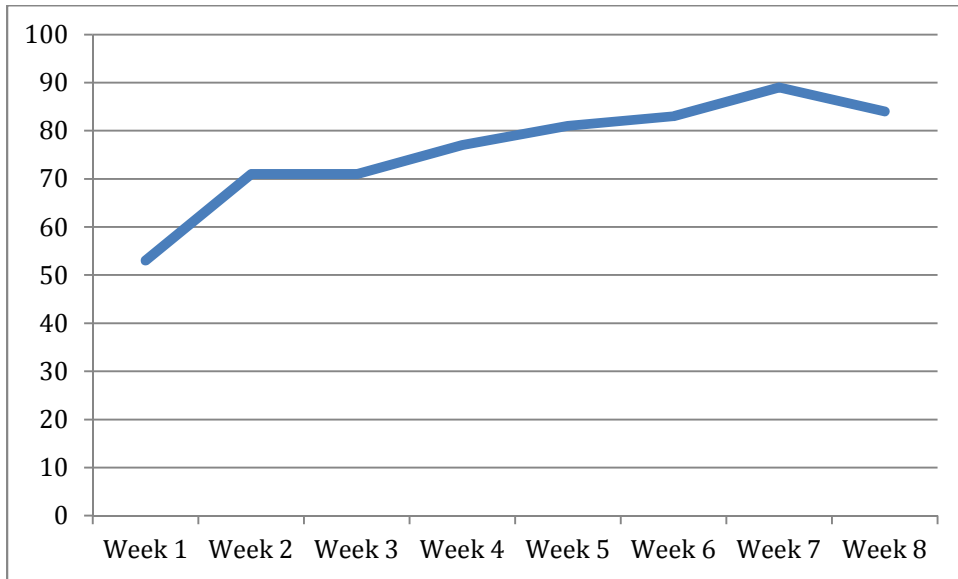


Table 11

Class 3B- General Education

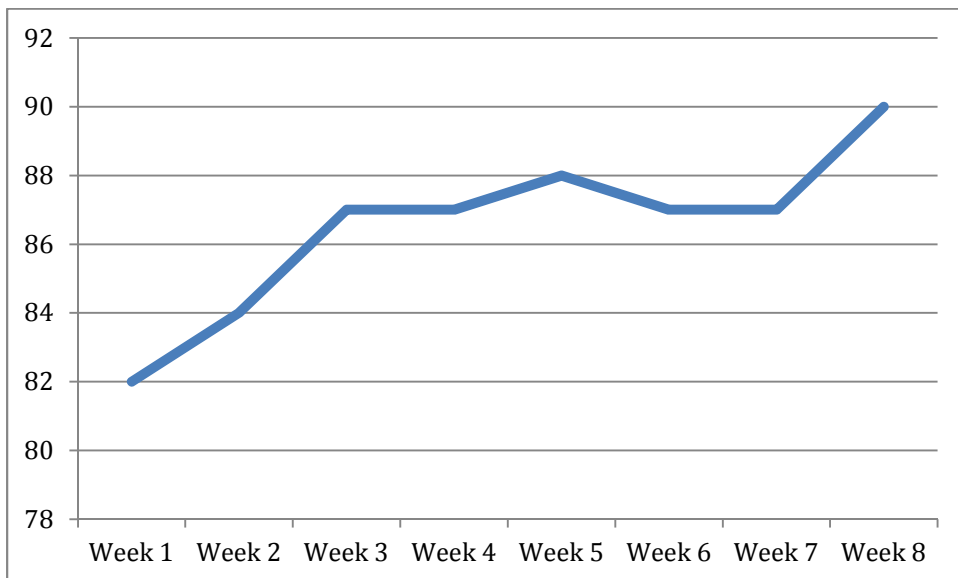


Table 12

Class 3C- General Education (Control Group)

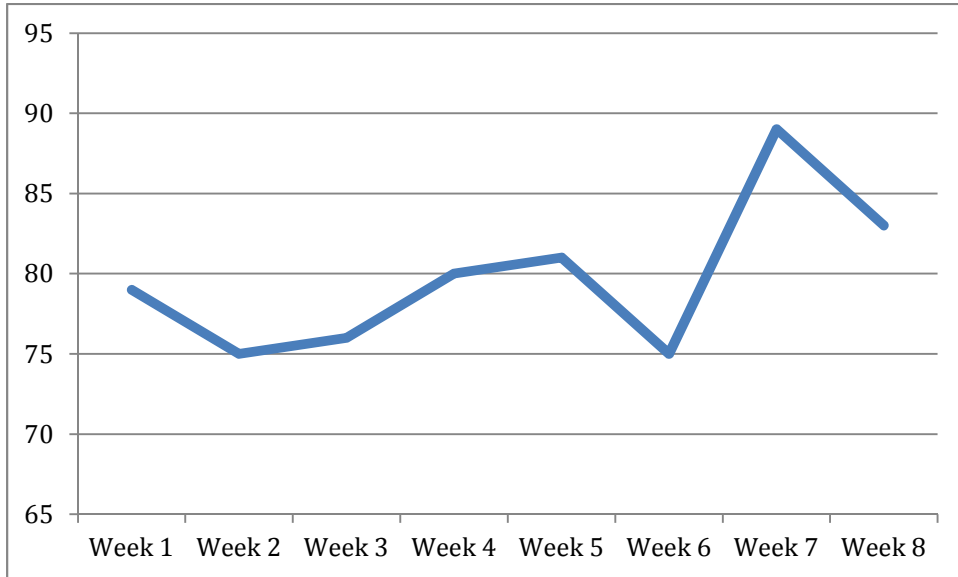
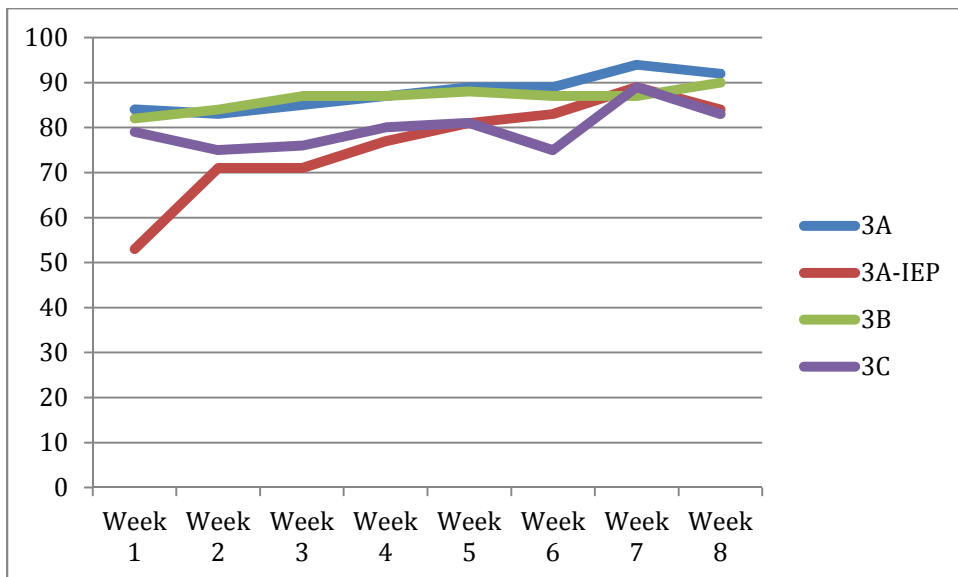


Table 13

All Four Groups Merged



Chapter 5

Discussion

This study examined the effects of the cooperative learning technique referred to as “think-pair-share” to determine if it could improve the academic self-concept of both general education students and special education students within an inclusive educational setting. This study included the evaluation of 55 students and their academic self-concept over an 8-week study.

The results of this study show that the think-pair-share method does cause an increase in the academic self-concept of not only general education students, but special education students as well. More specifically, the end of the study showed a 28% increase in regards to students feeling as smart as their peers.

By taking a closer look at the results of those students with IEPs, it can be concluded that the use of think-pair-share contributed to a 57% increase when students responded to the statement that they felt their work was on par or better than that of their peers.

Collection and assessment of test scores over the 8-week study yielded a rise in test scores for all groups in the study, with the control group having the smallest growth from an average of 79% to 83%. In comparison, the general education class saw a rise from 82% to 90%. In the inclusion classroom, the general education students improved their average test score from 84% to 92% and the students with IEPs improved from 51% to 84%. In summary, there was a significant difference in the academic self-concept shown in students using the think-pair-share method, both general education and

inclusion, and those not using the think-pair-share method in a general education classroom.

A study conducted by Anu Leminen concluded that those with learning disabilities attending special scores scored higher academic self-concept scores when compared to their general education peers attending a regular school. This similar study examined six different aspects of academic self-concept in those students with and without learning disabilities, and analyzed the change in academic self-concept over the length of the study. Not only were the differences in academic self-concept in those with and without disabilities studied, the study also focused on the differences between Finnish and Dutch schools. However, this study did not involve cooperative learning methods similar to the think-pair-share method, it was solely driven by collected data from a survey (Leminen, 2002).

A study conducted by Iqbal (2004) that showed the effects of cooperative learning on the academic achievement of both high and low students supported the use of cooperative learning techniques over the use of traditional lecture methods. With cooperative learning strategies such as round robin and team jigsaw, research has seen and suggested that there is in fact a strong relationship between the academic achievement of students and their self-concept. Both academic achievement and self-concept work hand in hand as gains in one lead to gains in the other. From the study, it has been found to have a significant positive relationship in different schools and different educational levels (Iqbal, 2004).

Limitations and Future Studies

During this study, a small group of students was examined in one particular grade level. In future studies, a larger sample across various grade levels would be helpful in determining more accurate results across different age groups. In addition, this study was only conducted for an eight week period. It would be beneficial to conduct this study over the course of a school year or following students throughout their academic careers to obtain a wider view on the changes in academic self-concept as cooperative learning strategies are continuously implemented. Students were not interviewed in this study; however, it would be beneficial to include students thoughts on cooperative learning methods and academic self-concept in future studies.

The students that were surveyed appeared to take the surveys seriously, but with young students, it can be difficult to determine if they understood the survey and provided appropriate responses.

Conclusion

This study answered the following question: Does the use of the turn and talk strategy, also referred to as “think-pair-share,” increase the participation of students with disabilities in the classroom to improve their academic self-concept? The data collected illustrated that the cooperative learning method referred to as “think-pair-share” showed a positive impact on the academic self-concepts of those in both a general education setting and those in an inclusion setting, with or without an IEP. Most students reported that they benefitted from the think-pair-share method during instruction based on answers to a questionnaire they completed pre-study and post-study. In addition, the student’s grades

were studied to determine if the think-pair-share method showed a positive impact on their learning and understanding, which it did, compared to the control group.

After reviewing multiple case studies, as well as conducting my own study, I have found that cooperative learning methods are beneficial in the classroom whether it is a general education classroom or a special education classroom.

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Appendix

Student Survey Questions

1. I can do as well or better than others at school.
 - Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
2. I am as smart as most people.
 - Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
3. I can understand skills taught at school.
 - Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
4. My skills are weaker than other people in this class.
 - Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
5. I have a good understanding of things I learn at school.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree